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Service Paper

AN EVALUATION OF THE EDUCATIONAL GROWTH  
OF A GROUP OF RETARDED CHILDREN

Submitted by

Marcia H. Crombie *M. Crombie*

(B.S. in Education, State Teachers College, Farmington, 1946)

In partial fulfillment of requirements for  
the degree of Master of Education

1949

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**Second Reader:** M. Agnella Gunn, Associate Professor of  
Education



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#### ACKNOWLEDGMENT

I wish to express my appreciation to Dr. Sullivan  
for her guidance in the development of this study.





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## CHAPTER I

### INTRODUCTION

The highest type of education, as it is understood today, is dedicated to the maximum development of each child's capacities, regardless of the level at which such training must start. The results of such a program will be twofold in that it will meet the needs of both the child and the community. Mahoney<sup>1</sup> has this in mind when she says that education should develop the child's capacities to the end that he may live happily as an individual and as a member of a democratic society. She continues, "According to this definition of education the mentally retarded child can be educated as successfully as his more intelligent fellows."

The problem of developing a program for the retarded child which will meet his needs and thereby enable him to take his place in the community is a serious one. Many plans have been evolved which have in turn been adapted by individual schools, in order to meet specific needs of their children or because of limitations which could not be eliminated. A study of the literature indicates that no "best" program has been designed. Some programs, however, have brought better results than others. The special class for mentally retarded children is considered one of the better plans and is one which is used with many variations. Martens writes:

Even at its best, the class program which must provide for the mentally deficient child in the same group with the

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<sup>1</sup> Agnes Mahoney, "Classes for Mentally Retarded Children," Nineteenth Yearbook, The National Elementary Principal, Bulletin of the Department of Elementary School Principals, National Education Association, XIX:448, July, 1940.





mentally superior child is usually not the most desirable plan for either pupil or teacher. Much more satisfactory conditions may obtain if seriously retarded children can be gathered together into a separate class assigned to an understanding teacher. Then there is every possibility of centering the class work about the needs of this particular level of intelligence.<sup>2</sup>

Education, if it is to meet the needs of society, can never become static. In order that progress will be made and changes brought about when they are needed, it is necessary that programs be analyzed and evaluated frequently. Such an evaluation is the purpose of this study.

### I. STATEMENT OF PROBLEM

The purpose of this study is to evaluate the educational achievement of a group of children who were assigned to a special class because of mental or educational retardation.

### II. SCOPE OF THE STUDY

The study was made in the Warren Junior High School in West Newton, Massachusetts. It includes eighteen pupils, nine of whom comprise the special-class group and nine who are in regular classes but who come to the special classroom for help in one or more subjects each day.

The data for the study were obtained through home visitations, conferences with parents, cumulative records, observation of pupils, reports from the visiting teacher, the school doctor, the school nurse, and classroom teachers.

The following tests were used in the study: the 1937 Revision of the

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<sup>2</sup> Elsie H. Martens, "Teachers' Problems with Exceptional Children--III: Mentally Retarded Children," U. S. Dept. of the Interior, Office of Education, 1934, p. 29.



Stanford-Binet Intelligence Test Form L,<sup>3</sup> an individual test which is accepted as a reliable and valid measure of intelligence; the Pintner General Ability Test: Verbal Series Form A,<sup>4</sup> a group intelligence test with a high degree of validity and reliability; and the Metropolitan Achievement Tests,<sup>5</sup> Forms R and S, which were standardized on a nation-wide population.

### III. DEFINITION OF TERMS

Intellectually Retarded. There has been considerable confusion in the minds of many regarding the child whose mental ability does not approximate that of the normal individual. Various terms have been used in referring to these children, such as mentally handicapped, exceptional, mentally deficient, mentally retarded, and feeble-minded. There is a difference in the types of mental limitations which a looseness of terminology tends to obscure. The designation of intellectually retarded is used in this study in accordance with the definition formulated by the Sub-committee on Mental Deficiency at the White House Conference on Child Health and Protection.<sup>6</sup> The committee defined feeble-mindedness as mental subnormality coupled with social incompetence and intellectual retardation as mental subnormality

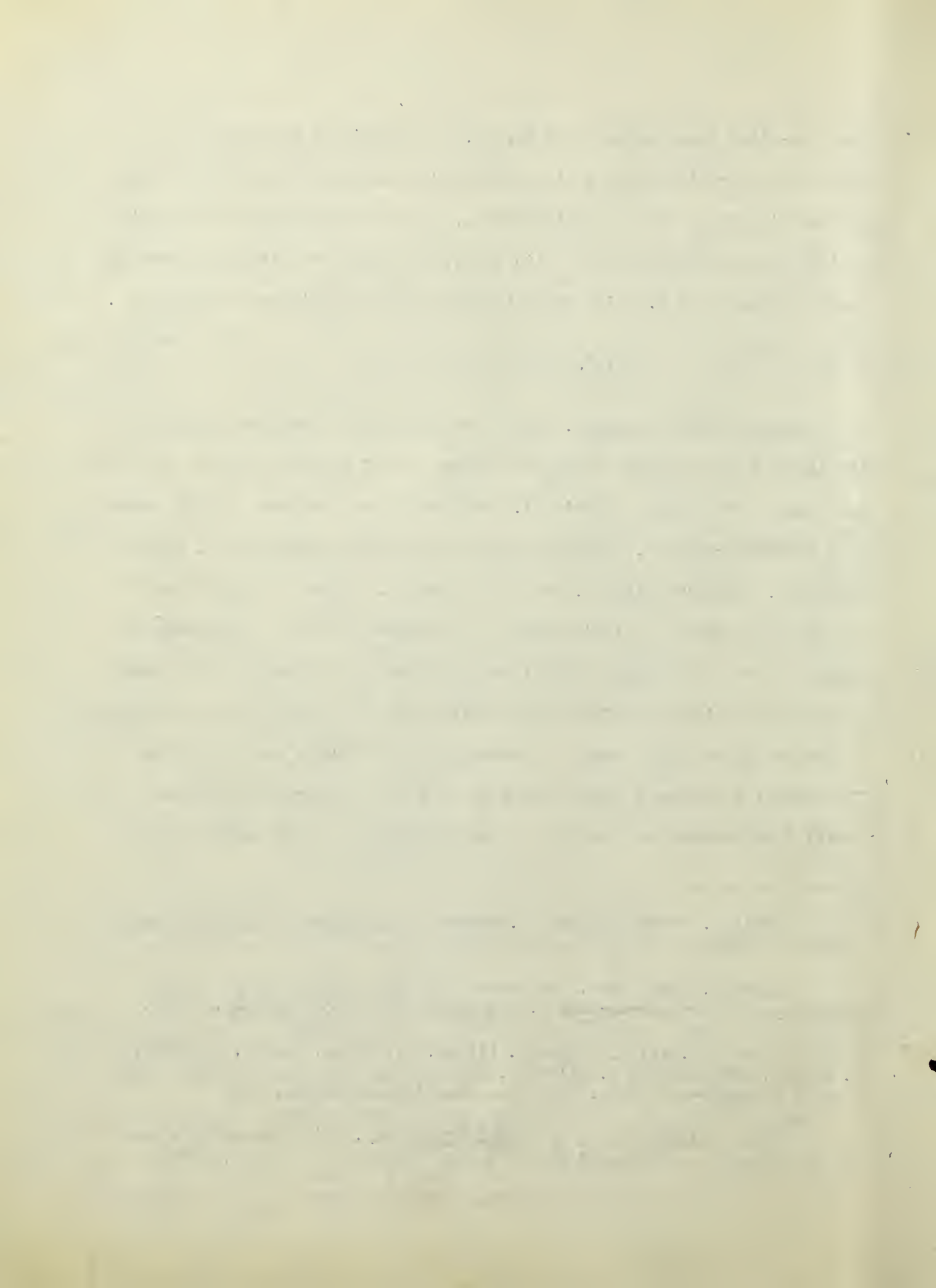
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<sup>3</sup> Lewis M. Terman and Maud A. Merrill, Measurement of Intelligence (Boston: Houghton Mifflin Company, 1937).

<sup>4</sup> Pintner, Cunningham, and Durost, Pintner General Ability Tests: Verbal Series (Yonkers-on-Hudson, New York: World Book Company, 1940).

<sup>5</sup> Richard D. Allen, Harold H. Bixler, William L. Connor, Frederick B. Graham, and Gertrude H. Hildreth, Metropolitan Achievement Tests, Forms R and S (Yonkers-on-Hudson, New York: World Book Company, 1946).

<sup>6</sup> Sub-committee Report on Mental Deficiency, White House Conference on Child Health and Protection (New York: The Century Company, 1930).





without social incompetence. Not all the children in this study are of subnormal mental ability as is clearly indicated by their obtained Intelligence Quotients (Stanford-Binet).

Special Class. The provisions for caring for the intellectually retarded pupils in the schools vary greatly. Some states make no attempt to answer the problem which these children precipitate, while in other states a great deal is being done. Some states, of which Massachusetts is one, make it mandatory by law that all pupils who are three or more years retarded be placed in special classes. The special class or helping class is for those children who are so mentally retarded that they are unable to profit by the regular school program, but can achieve in a situation where the curriculum is fitted to their needs and abilities.

Helping Teacher. The duties of the helping teacher as considered in this paper are twofold. She is the teacher and home-room "mother" of the special-class pupils, that is, those who are three or more years retarded mentally. She also helps those from other home rooms who need assistance in their academic subjects. These children may, or may not, be mentally retarded. They are all, however, retarded educationally in one or more subjects.

Case Study. The case study is a method by which one gets information concerning an individual which cannot be obtained by objective measurements. Sherman has defined the case study as "essentially the story of an individual's developmental history which includes his physical, intellectual,



personality, emotional, and behavioral growth."<sup>7</sup> Isolated facts as such are inadequate in explaining a person's behavior; therefore, in this study the facts obtained are interpreted according to Dollard's concept of a life history which he expresses as "a deliberate attempt to define the growth of a person in a cultural milieu and to make theoretical sense of it."<sup>8</sup>

#### IV. JUSTIFICATION OF THE STUDY

It is not enough to make the school experience for the intellectually retarded child a happy one. It must be meaningful as well, with a program which will equip him to take his place in society at the highest level of which he is capable. Because it is true that he learns slowly, his program should be so well planned that wasted time is kept at a minimum. The point at issue is to determine the means whereby the best educational plan for each child can be developed.

No child can be understood apart from the factors which have, and are contributing their influence to make him the individual he is. Therefore, to know the child one must try to know and understand those factors which are operative in his life.

A valid criticism of the proposed plan is the time required to obtain the information, interpret the findings, and develop individual plans. It would not be feasible to attempt such a program each year with each class, but the knowledge and insight which is acquired from knowing a few

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<sup>7</sup> Mandel Sherman, Basic Problems of Behavior (New York: Longmans, Green and Company, 1941), p. 206.

<sup>8</sup> John Dollard, Criteria for the Life History (New Haven: Yale University Press, 1935), p. 8.

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individuals will serve as a basis for understanding others with whom one comes in contact.

#### V. RECAPITULATION

The purpose of this study is to show that better understanding of the pupils' needs and an increased appreciation of their individual limitations and abilities will result from a thorough knowledge of their developmental history as revealed by the case study approach. A more adequate program can be developed whereby each child will achieve at a rate which approximates his mental ability when his needs, strengths, and weaknesses are known.

Nothing has been said of the intangibles which should result from the study. It is reasonable to assume that the class morale will be high in a situation which provides a means for each individual to achieve, according to his ability, in an atmosphere of understanding.





## CHAPTER II

### SUMMARY OF RESEARCH

During the present century there has been an upsurge in the degree of interest which is taken in the mental, the emotional, and the physical growth of the child. This is significant when one considers that the scientific study of child development did not begin to assume systematic form until the latter part of the nineteenth century and that, previous to 1872, not more than a dozen important studies in this field had been carried out. From that time on, however, many able minds turned to the investigation of growth in its various phases and literature became the richer because of their findings. The results of some of these studies are reviewed in the following pages.

#### I. DEVELOPMENT OF CHILD STUDY AND ITS SIGNIFICANCE FOR THE SUB-NORMAL

One might wish that the results of the early investigations were of immediate value to those who needed their help, but such was not the case. Goodenough<sup>9</sup> writes that it was not until the close of the nineteenth century that any sort of effective liason was established between educational theory and practice, on the one hand, and scientific study and investigation, on the other. It was early in the nineteenth century that the French otologist, Dr. Itard, attempted to socialize the wild boy who was found in the

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<sup>9</sup> Florence L. Goodenough and John E. Anderson, Experimental Child Study (New York: The Century Company, 1931), p. 546.



forests of Aveyron. Dr. Itard used methods which at that time were being used in the education of deaf mutes; but this boy, who was unable to talk, who refused to wear clothing, and who acted more like an animal than a human child, furnished disappointing results. Sloan<sup>10</sup> notes, however, that many points of significance resulted from the experiment. Pinel recognized the boy as an idiot; but of greater importance, Seguin, Esquirol, and Voisin, knowing of Dr. Itard's work, became interested in mental defectives, and eventually they did much to bring about a better understanding of them. Methods and techniques for their training were developed, and in 1837 Sequin organized the first successful school for the systematic training of mental defectives.

✓ One of the most valuable aids for the evaluation of the mental capacity of a child is the intelligence test. The outstanding name in this field is that of Alfred Binet, who as early as 1895 became interested in developing a type of test very different from those in use at that time. Because of his work, he was commissioned to investigate the capacities and possibilities of the school children in Paris, especially those of low mental ability. It was especially desired that this differentiation could be made at an early age, a need that is recognized at the present time as of great importance. Thus, as Mursell<sup>11</sup> points out, the testing movement of today had its inception in a practical problem. The test, which was published by Binet in 1905, contained many of the features of present-day scales.

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<sup>10</sup> William Sloan, "Mental Deficiency, A Challenge to Education," Peabody Journal of Education, 25:167-174, January, 1948.

<sup>11</sup> James L. Mursell, Psychological Testing (New York: Longmans, Green and Company, 1947), p. 449.





The contribution made by Binet to child study and understanding was of inestimable value, for he, among the first, was aware of the significance of age differences and their relationship to mentality. It was he who pointed out that children of the same age, but of different mental ability would pass different numbers of tests. His findings, together with those of others in the field of mental testing, did much to increase the interest of the public in the vast question of individual differences and to clarify the concept of general intelligence. In discussing this question, Mursell writes:

The concept of general intelligence, then, stands for two things. First, it stands for a way of appraising and dealing with people. A human being is not to be understood as a composite of special faculties. If he is to be appraised at all, if his promise and limitations are to be assessed, this should be done in terms of a general over-all evaluation of something perhaps hard to define, but fairly recognizable, i.e., his general intellectual capacity.

Second, it stands for a way of thinking about human beings and human mental life. Mental life must be considered as a total interconnected organic unity, and not as a sum of independent parts.<sup>12</sup>

Bryant, in a discussion of I. Q. ratings, states:

Many revisions of the Binet-Simon Scale have appeared in America, notably those of Goddard, Yerkes and Bridges, but the one most universally used today is the Stanford Revision devised by Dr. Lewis M. Terman, and Associates, of Stanford University. Dr. Terman published revisions of the scale in 1916 and 1937. As a result of his work with one thousand unselected school children, Dr. Terman devised the Intelligence Quotient or the "I. Q." as an index of the level of intelligence. The I. Q. is simply the ratio of mental age to chronological age and is found by dividing mental age, in months, by chronological age, in months.....There is no definite line of demarcation between the various gradations of intelligence, rather the distribution of intelligence may be considered as theoretically following the normal curve of distribution from very defective or inferior

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<sup>12</sup> Mursell, op. cit., p. 69.





intelligence up through the subnormal, borderline, dull normal, normal, superior, very superior and genius degrees. The boundary lines between such groups are arbitrary and are used for convenience only in designating varying levels of intelligence. Terman's classification of I. Q.'s is the one most often used today.<sup>13</sup>

The classification to which Bryant referred in the above statement is as follows:<sup>14</sup>

<u>I. Q.</u>	<u>Classification</u>
Above 140	"Near" genius or genius
120-140	Very superior intelligence
110-120	Superior intelligence
90-110	Normal or average intelligence
80-90	Dullness, rarely classifiable as feeble-mindedness
70-80	Borderline deficiency, sometimes classifiable as dullness, often as feeble-mindedness
Below 70	Definite feeble-mindedness

Mursell<sup>15</sup> points out that the real purpose of the I. Q. is to give a stated degree of brightness the same value at all age levels. While emphasizing its importance as a measure of intelligence, he warns that it should be interpreted wisely and that consideration should be given to the test on which the I. Q. was obtained as all tests do not fulfill the conditions required for a stable reading. He states:

The test which best meets the conditions for a stable I. Q. is the Revised Stanford-Binet scale. However, it does not do so perfectly, as the distribution of I. Q.'s at different ages

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<sup>13</sup> Margaret B. Bryant, and others, Instructional Guide for Teachers of Special Training Schools and Classes (Los Angeles: Los Angeles City School District, 1948), p. 3.

<sup>14</sup> L. M. Terman, The Measurement of Intelligence (Boston: Houghton Mifflin Company, 1916), p. 79.

<sup>15</sup> Mursell, op. cit., p. 369.



fluctuates considerably. This is particularly serious in the case of very high and very low I. Q.'s which should be accepted with much reservation.

The concept of general intelligence has become so much a part of our thinking today that one is apt to forget that no clear differentiation between the feeble-minded and the insane had been made prior to the end of the nineteenth century. As a result of the studies made by Binet, Goddard, Kuhlmann, Terman, and others, it became evident that there were wide ranges of ability in that class of individuals classed as mentally deficient. Some were defective to such an extent that they were incapable of the social adjustment for the simplest type of group life, while others could, with help, become self-sustaining.

A study of the literature pertaining to the care and the training of the mentally defective shows the opposition against which those who pioneered in the work had to struggle. A survey of the work in Massachusetts is illustrative of the devotion to high ideals which those who undertook the task assumed. Raymond<sup>16</sup> tells of Dr. Samuel Gridley Howe and George Sumner who did so much "in spite of resistance and antagonism and stubbornness of various members of the legislature" to gain public help and support for these unfortunate children. A current publication of the day carried caricatures of these two men as Don Quixotes, tilting at windmills. They achieved a measure of success, however, and to Dr. Howe belongs the distinction of being the most important individual who was influential in the establishment of the first Experimental School in South Boston which

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<sup>16</sup> Stanley C. Raymond, M.D., "The Development of the Program for the the Mentally Defective in Massachusetts for the Past One Hundred Years (1848-1948)," American Journal of Mental Deficiency, LIII:80-91, July, 1948.





continued there for forty years. In the year 1948 the Massachusetts Legislature appropriated a sum of \$2500 annually for the Experimental School which was to be operated in connection with the School for the Blind. It was stated that this school was to care for ten idiotic children but, after a period of two years, its work was expanded and it became incorporated as the Massachusetts School for Idiotic and Feeble-minded Youth. The years that followed demanded a constant struggle to overcome opposition and prejudice. Although Massachusetts was the first state to make any provisions for the mentally deficient children within its jurisdiction, other states, especially New York, Pennsylvania, and Ohio, advanced much faster in this work.

The first special class for backward children in the United States was established in Providence, Rhode Island, in 1896. Two years later, in Springfield, Massachusetts, a special class was established for the same purpose. Today there are approximately 600 special classes in Massachusetts with an enrollment of about 12,000 children. In 1919 the Massachusetts Legislature enacted the following law:

An Act to Determine the Number of Children Retarded in  
Mental Development and to Provide for Their Instruction

Sec. I. The school committee of each city and town shall, within one year after the passage of this act, and annually thereafter, ascertain, under regulations prescribed by the board of education and the director of the commission on mental diseases, the number of children three years or more retarded in mental development who are in attendance upon the public schools of its city or town, or who are of school age, and reside therein.

Sec. II. At the beginning of the school year of nineteen hundred and twenty, the school committee of each city and town in which there are ten or more children three years or more retarded shall establish special classes to give such children





instruction adapted to their mental attainments, under regulations prescribed by the board of education.<sup>17</sup>

✓ In a discussion of the operation of this state-wide plan, Fernald<sup>18</sup> lists the following ten areas which are explored in the study of each child: physical examination, family history, personal and developmental history, examination in school subjects, practical knowledge and general information, economic efficiency, social history and traits, moral reactions, and psychological examination. The study is made by one of the two state clinics, each of which consists of a psychiatrist, a psychologist, a social worker, and a clerk, and all of whom devote their entire time to the work of the clinic. Fernald emphasizes the fact that:

These clinics have been constructive from the start, the purpose of the examination being not to discredit the backward child in any way but rather to find his present capacity for training, his probable rate of progress, his personal handicaps or special abilities, and the like.

He summarizes his discussion as follows:

All of our experience with the feeble-minded indicates that if we are to manage adequately the individual defective, we must recognize his condition while he is still a child and protect him from evil influences, train and educate him according to his capacity, make him industrially efficient, teach him to acquire correct habits of living, and when he has reached adult life, continue to give him the friendly help and guidance he needs. If conditions are right he may live at home and receive his training in the rural school or in the special class. If he is actually a social menace he will need the institution. These advantages should be accessible to every feeble-minded person in the state and not to a few favored persons. The rights of the feeble-minded person and of his family should be guarded jealously, as well as the rights of society.

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<sup>17</sup> General Acts of the State of Massachusetts, Chapter 277, Sections I and II.

<sup>18</sup> Walter E. Fernald, "The Inauguration of a State-Wide Public School Mental Clinic in Massachusetts," Mental Hygiene, VI: 471-486, July, 1922.

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In a discussion of the needs of the mentally retarded, Wallen states:

It is probably safe to conclude that, taking the country as a whole, from 80 to 85 per cent of the children sufficiently retarded mentally to require special class instruction are enrolled in the regular classes where most of them are not receiving instruction adapted to their needs and where they are taught by teachers without special qualifications for instructing children of low mentality or without a comprehension of the vital educational and social problems which such children create.<sup>19</sup>

## II. CLARIFICATION OF TERMS

The terms used to designate those who deviate from the normal cause confusion because of the looseness with which they are employed. The following paragraph appears in "Intelligence: Its Nature and Nurture":

However, the practice, established about 1916, of defining "inferior" as a status falling more than -1 P. E. away from the mid-point of the distribution is still, at the date of the writing, accepted in the literature. This automatically includes 25 per cent of the school population under the concept of inferior deviates; though the concept of feeble-mindedness still includes only about 2 per cent, those falling at or below about 70 I. Q. (Stanford-Binet).<sup>20</sup>

The same source states that studies show the typical person with an I. Q. below 90 at large and occupied in some legal mode of life which enables him to be self-sustaining.

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<sup>19</sup> J. Edgar Wallace Wallen, "Typical Children--Mental Defectives," Encyclopedia of Educational Research, p. 86.

<sup>20</sup> Carmichael, Leonard, and others, "Intelligence: Its Nature and Nurture," The Thirty-Ninth Yearbook of the National Society for the Study of Education (Bloomington, Illinois: Public School Publishing Company, 1940), p. 409.







The Sub-committee on Mental Deficiency<sup>21</sup> at the White House Conference on Child Health and Protection defined feeble-mindedness as mental subnormality without social incompetence. The criterion "once feeble-minded, always feeble-minded" cannot be lightly ignored. Doll writes:

The concept of essential incurability of feeble-mindedness has been confused by the fact that the mentally deficient who are only intellectually retarded do ultimately attain independent social-economic sufficiency. It is now clear that whereas special education for the feeble-minded accomplishes appreciable improvement in habits and adjustment it does not materially alter the essential nature of the condition. But the intellectually retarded are sufficiently benefited by special education to take their places in society as well-adjusted dull normals.<sup>22</sup>

He emphasizes the need to adhere to the definition of mental deficiency as feeble-mindedness and to always insist on contrasting the attributes of the feeble-minded with those of the intellectually retarded, in order to clarify the issue. The need of clarification is apparent in the educational objectives of the two groups, one of which will always be feeble-minded and the other which will produce adults of marginal normalcy. The feeble-minded will always require some degree of social assistance and supervision, whereas the intellectually retarded will be socially self-sustaining. The education of the first group should be directed toward the inculcation of habits and virtues which will minimize the social consequences of social dependency, and the second should have a program aimed to develop maximum

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<sup>21</sup> Committee Report on the Physically and Mentally Handicapped, White House Conference on Child Health and Protection (New York: The Century Company, 1930).

<sup>22</sup> Edgar A. Doll, "Feeble-Mindedness Vs. Intellectual Retardation," Journal of Educational Research, 40:560-573, 1947.



initiative and resourcefulness. Gesell<sup>23</sup> feels that a mentally deficient child does not have the possibilities of normal development. His retardation is permanent and incurable. In contrast to the opinion held by those writers who have been quoted is that of Schmidt<sup>24</sup> who reports on a study which covered a period of eight years. Two hundred fifty-four children who had been classified as feeble-minded by the psychologists of the Bureau of Child Study of the Chicago Public Schools were referred to special classes in the public schools of that city. The average initial I. Q. of 52.1, as determined by the Bureau of Child Study, rose to 71.6 at the completion of three years' training and to 89.3 at the completion of five years' post-school experiences. Schmidt further reports that 27 per cent of these feeble-minded children completed a four-year high school course and that 5.1 per cent continued post-high-school training. According to this study, the average I. Q. level was raised 37.2 points over an eight-year period.

### III. THE SPECIAL CLASS

Whose responsibility is this, the education of the feeble-minded and the intellectually retarded child? Dr. Gesell<sup>25</sup> feels that it is only when the deficient child is an actual menace or an intolerable burden, that he should be institutionalized. Otherwise, and this will be in the majority

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<sup>23</sup> Arnold Gesell, The Retarded Child: How to Help Him (Bloomington, Illinois: Public School Publishing Company, 1925), p. 100.

<sup>24</sup> Bernardine G. Schmidt, "Changes in Personal, Social, and Intellectual Behavior of Children Originally Classified as Feeble-minded," Psychological Monograph, 60:1-144, September, 1946.

<sup>25</sup> Arnold Gesell, op. cit.





of cases, the public school system must accept such children and develop their capacities to the full. Wallen<sup>26</sup> maintains, "No child, except idiots and lowest-grade imbeciles should be excluded from school as untrainable or ineducable without a fair probationary period," and Fernald<sup>27</sup> also agrees that it is only when a child is a social menace that he should be institutionalized.

The greatest need of these children, as seen by Lowenfeld,<sup>28</sup> is that they shall be understood. They may be just as happy or unhappy, may succeed in their education just as well, and may adjust themselves to their environment just as completely, as others. Their success in the personal, educational, and social fields is an individual problem. Exceptional children who are accepted by their family and social groups and who are measured by the things they can do have a fair chance for success in life. If justice is to be done the exceptional child, he must be accepted for what he is, he must be given help and understanding without making him unduly dependent, and he must have the guidance which will enable him to develop as fully as he is capable. He needs the same balance between success and failure that other children need. Goodenough<sup>29</sup> writes, "Although children vary greatly in rate of development, the order of development as marked by

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<sup>26</sup> J. Edgar Wallace Wallen, "Philosophy of Education for the Mentally Handicapped Child," Mental Hygiene, XVIII:404, July, 1934.

<sup>27</sup> Fernald, op. cit.

<sup>28</sup> Berthold Lowenfeld, "The Case for the Exceptional," Journal of Exceptional Children, 12:130, February, 1946.

<sup>29</sup> Goodenough, op. cit., p. 24.





the successive appearance of various developmental events varies but little from one child to another." Featherstone finds the same to be true in respect to mental development:

The slow-learning pupil learns in the same way, fundamentally, that other pupils learn. That is, he learns from and by experience. He imitates, he purposes and plans, he thinks and reasons, he experiments, he generalizes, and he draws upon his past experience, or transfers it, to meet new situations. But he does not think and reason as well, he is less imaginative, less able to foresee the consequences of an overt or an implicit course of action, and is inclined to jump at conclusions without the benefit of much reflection.<sup>30</sup>

Three important ways in which the slow-learning child does differ from the average child, as they are listed by Baker,<sup>31</sup> are: "quantitative differences in intelligence; qualitative differences in learning methods and in mental functioning, and the effects of non-intellectual factors."

The White House Conference on Child Health and Protection,<sup>32</sup> which was called by President Hoover, has defined the class for sub-normal children as a class which "includes children who are so mentally retarded that they are unable to profit by the regular school program." Its aims, as voiced by Wallen, are wide in scope:

The major aims of the special class should include the correction of hampering character traits, the development of socially desirable habits, attitudes, and personality traits, maximal mastery of the instructional literary elements, ability to find satisfactions in the social life of the home and the

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<sup>30</sup> W. B. Featherstone, Teaching the Slow Learner (New York: Bureau of Publications, Teachers College, Columbia University, 1941), p. 6.

<sup>31</sup> Harry J. Baker, Introduction to Exceptional Children (Boston: The Macmillan Company, 1944), p. 2.

<sup>32</sup> Committee Report on Special Education, White House Conference on Child Health and Protection (New York: The Century Company, 1931).



community, worthy use of leisure time; and practical efficiency. The handicapped child should be so trained that he will become a happy contented self-respecting, dependable, law abiding, and maximally self-supporting citizen whether he is destined to live in a colony or at large in society.<sup>33</sup>

Martens lists six objectives which the special class program must stress each day for each child:

1. An ease and a joy in social relationships that enable him to find friends and to participate in social experiences.
2. The knowledge and disposition to keep physically well in order to enjoy life to its maximum.
3. An ability to plan and to choose his leisure activities.
4. An ability to cook his own food, care for his own clothes, and to make his dwelling habitable.
5. The ability to earn as much of the necessities of life as possible.
6. Enough general knowledge of specific skills to spend his earned salary wisely; and enough general knowledge of the products necessary in sustaining life to give meaning to their use.<sup>34</sup>

Hungerford, in describing the program for the retarded in New York City's public schools, concludes that:

Conscientious educators have come to see that the mentally deficient, if they are to realize their potentialities, must be given a different developmental program rather than a remedial or impractical adaptation of a normal program. Such education must give to each child a competency in the following: 1. the technique of self measurement, 2. a knowledge of suitable job, family, and social requirements, 3. the techniques of

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<sup>33</sup> Wallen, op. cit., p. 88.

<sup>34</sup> Elsie H. Martens, A Guide to Curriculum Adjustment for Mentally Retarded Children (Washington, D. C.: United States Department of the Interior, Bulletin No. 11, 1936), pp. 18-19.







meshing abilities with vocational and social requirements,  
4. the "drive" or desire for social contribution.<sup>35</sup>

Elsewhere, Hungerford<sup>36</sup> voices the pertinent thought that, "The motivation factor behind special education for the retarded today is one of contribution to society rather than mere participation in society." It is generally conceded that the foundation of useful habits should be the basis of education for the sub-normal child. He should be, in as far as is possible, equipped with "standardized behavior" which will enable him to make habitual responses to daily life situations. The subject matter in the special class should consist of a program of work suited to the capacity and needs of the exceptional child, including a mastery of the elementary school subjects according to his ability, work in industrial and practical arts, the development of adequate health habits, and the attainment of desirable social responses which will enable him to get along well with others.

Dr. C. Stanley Raymond,<sup>37</sup> Superintendent of the Wrentham State School in Wrentham, Massachusetts, delivered two lectures on "The Feeble-minded" in the course Bases of Behavior which was offered during the first semester 1947-1948 at Boston University. One point which he stressed was the need of giving these handicapped children all the education, both social and academic, which they are able to assimilate. While Dr. Raymond

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<sup>35</sup> Richard H. Hungerford, "The Non-Academic Pupil," Occupational Education, IV:80, January, 1947.

<sup>36</sup> Richard H. Hungerford and Louis E. Rosenzweig, "The Place of the Retarded in a Day School," Occupational Education, IV:6-7, October, 1946.

<sup>37</sup> C. Stanley Raymond, "The Feeble Minded," Two lectures delivered at Boston University, School of Education, November 10 and 17, 1948.



considered the social training of greater importance for the future happiness and well-being of the feeble-minded child, he emphasized the need of an academic program which meets the needs of the individual child, wherever he may be, educationally. A table showing the final mental age and the final school age, as predicted by I. Q. ratings was given to the class members. A copy of the table, which is used at Wrentham for diagnostic purposes, follows:

### I. Q. Prediction

<u>I. Q.</u>	<u>Final Mental Age</u>	<u>Final School Age</u>
30 .....	5 .....	Kindergarten
40 .....	6 .....	1st
45 .....	7 .....	2nd
50 .....	8 .....	2nd or 3rd
60 .....	9 .....	3rd
65 .....	10 .....	4th
70 .....	11 .....	4th
80 .....	12 .....	5th or 6th
85 .....	13 .....	7th
90 .....	14 .....	8th
95 .....	15 .....	all grades possibly H S
100 .....	16 .....	H S

In order to meet the needs of the exceptional child, the classroom procedures must be varied and should include, whenever possible, concrete experiences. Much meaningful repetition and drill will be necessary if the material is to assume significance to the child. Dearborn states:

It is not, however, so much the method which counts as the individualization, and the contact of the pupil with someone who not only has pedagogical skill but who believes in him and in his eventual success. The important things are: first, the demonstration to the child that he is not so stupid as he perhaps fears and his teachers and classmates may believe; then, second, to give him some insight into the nature of the "quirk" in his mental machinery which has made learning so difficult





for him; and finally, to offer assurance that the task can be accomplished, or better still some concrete evidence of progress. Once the pupil's confidence in himself is re-established he is on his way even though it may be a long and a hard pull.<sup>38</sup>

In order to be effective guides, teachers must know their pupils' abilities, their limitations, their reactions in the school situation, and also, their home environment, their play experiences, their attitudes, conflicts, and their problems. An important factor in the study of deviated children, but one frequently overlooked, is referred to by Street. He writes:

The child with a mental deviation may find himself in a family where other members are deviated like himself and any problem created by his deviation occurs only when he moves from the home into the larger social units such as the school, the neighborhood, and the community. He may, on the other hand, find himself in a home where his deviation makes him different from the other members of the family and his behavior is not understood by them.<sup>39</sup>

Street continues by pointing out that in the first instance, the teacher's problem is to be certain that the work which the child does at school is in close harmony with what is expected at home. At the same time the family should be helped as a whole to function in the best way for the good of the community. In the second instance, the major problem is in helping the family understand the nature of the child's deviation and thus reduce to a minimum the conflict over the expectation of the child's accomplishments and the actual performance.

The teacher who would know his pupils as personalities will accept

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<sup>38</sup> Walter F. Dearborn, Difficulties in Learning (Chicago: The University of Chicago Press, National Advisory Council on Radio in Education, 1932).

<sup>39</sup> Roy F. Street, "Administrative Techniques for Caring for Mental Deviates," Journal of Exceptional Children, 10:47, November, 1943.





no single test or arbitrary intelligent quotient as the determining factor in diagnosing the needs. Rather, he will utilize every means at his command which will furnish information and thereby aid in developing a more sympathetic understanding of the individual problems of each child in his care. Featherstone says that:

Perhaps the most important factor in any school which would build on a naturalistic foundation is the point of view of the teacher. It is necessary that she see clearly the essential character of behavior and the essential nature of learning, meaning, knowledge and value which are inherent therein. It is essential that her point of reference be constantly the unitary relationship of individual and environment--not the environment alone as something to which the individual is to be moulded or "adjusted" or which is to be interpreted to the individual, and not the individual alone as that to whom the environment is to be adapted. She must see the two as interacting aspects of one thing.<sup>40</sup>

The importance of understanding the child's needs is evidenced by the results obtained from a study conducted by Abel<sup>41</sup> for the purpose of determining the relationship between academic success and personality organization among sub-normal girls. Fifteen pairs of moron white girls were selected for the study, each pair being matched for Stanford-Binet I. Q., within five points, and for chronological age, within five months. The range of I. Q.'s was 48 to 76, and the chronological age range was from 11 years, 1 month, to 15 years, 11 months. There was a difference in school placement, however, of two or three grades between the members of

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<sup>40</sup> W. B. Featherstone, The Curriculum of the Special Class, Its Underlying Principles (New York: Bureau of Publications, Teachers College, Columbia University, 1932), Contribution to Education No. 544, p. 130.

<sup>41</sup> Theodora T. M. Abel, "The Relationship Between Academic Success and Personality Organization Among Subnormal Girls," American Journal of Mental Deficiency, 50:251-256, 1945.

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each pair of girls with a grade range from one to four. As well as using the Stanford-Binet Intelligence Tests and the Arthur Point Performance Scale, the Rorschach Test was also given. All of the girls were given a thorough neurological examination and a careful review was made of their medical and family histories. A summary of the medical and family histories showed that to some extent the lower educational group had more handicaps than the higher one, more cases of brain injury, more left-handedness, speech defects, and other structural difficulties. It was definitely shown that in those cases where a well-integrated personality was reflected by the responses to the Rorschach Ink Blots the school success was at a rate which could be expected of an individual with a corresponding level of mental maturity.

The need of knowing the child is emphasized by Sloan, who says:

The teacher of the mental defective must know not her subject matter but her pupil. The complexities of the human individual are not simplified in an individual whose intellectual processes are retarded. They can be as complex as the quirks of a genius. Here lies the challenge to education. To develop adequate tools for diagnoses of personalities and to develop appropriate methods and techniques for dealing with these people in an effort to assist them in making an adjustment to society. This requires not so much the indoctrination of a specific subject but requires more a process of education in its liberal sense of "bringing forth."<sup>42</sup>

The typical special class is made up of those children who, for various reasons, fail to learn and thus become problems because of their educational retardation, or of those children who, because of mental retardation, cannot profit from the work in the regular classroom. Both of these groups need help, but their needs cannot be adequately met when they are

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<sup>42</sup> Sloan, op. cit., p. 139.







placed together in the same classroom. Cornell supports the above statement as follows:

A class cannot function successfully unless it is a teachable and social unit. It is true that when the group is small, as it is in special classes, the actual teaching may be more or less individual; but for children who need this kind of training, it is also true that the social value arising out of group activities is of at least equal importance with the acquisition of academic fundamentals. This is impossible when children vary too widely in age, abilities, and interests.

Some children not far from normal in mental ability and others perhaps dull, are unable to do school work successfully because of an emotional instability or other psychopathic traits. It is not denied that these children need special help, but their presence in a special class for sub-normal children only complicates the problem.<sup>43</sup>

She gives as an ideal special class the following suggestions: a group of approximately fifteen children with mental age range from 5 years to 10 years and a chronological age range from approximately 8 years to 15 years. The learning capacity as represented by I. Q.'s would range from 50 to 75 with a few reaching 80, and the school achievement would vary from pre-primary to average fourth grade work with a few doing work at the fifth-grade level.

#### IV. EVALUATION OF SPECIAL-CLASS WORK

In order to determine the value of special-class work for those who are mentally retarded, it is necessary to follow their progress during the years after they have left the school situation. An outstanding piece of

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<sup>43</sup> Ethel L. Cornell, "The Function of the Special Class in the Public School," Mental Hygiene, IX:560, July, 1925.



work has been done by McKeon<sup>44</sup> in this field. She proposed to obtain evidence of the effectiveness of special-class education for the mentally handicapped. Her study was carried on in six cities with populations ranging from slightly over 200,000 to approximately 800,000. These were industrial cities, and they were located in four different states in the eastern part of the United States. Three hundred fifty subjects were chosen with I. Q.'s ranging from 50 to 90 and C. A.'s ranging from 17 to 27 years. All the subjects had been graduated from special classes for a period of from one to ten years. McKeon found that 61 per cent of the boys and 31 per cent of the girls were self-supporting. Of the girls, 28 per cent were classed as "married women at home." Of those employed, 86 per cent of the boys and 81 per cent of the girls were rated as satisfactory employees by their employer or supervisor. The report showed that 75 per cent of the boys and 58 per cent of the girls were unmarried. Of those who were married, less than 10 per cent had had marital difficulties. She states:

In general, it appears that individuals trained in schools that have followed the practice of emphasizing activities concerned with the functions of guidance tend to make better vocational adjustments. Those who have been helped in the development of hobbies and interests tend to be better equipped for spending their leisure time in worth-while activities.

She recommends more careful records of standardized measures of achievement which will be useful in educational and vocational guidance; occupational information, exploratory courses, and work experience programs;

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<sup>44</sup> Rebecca McKeon, A Comparative Follow-Up Study of Mentally Handicapped Youth Who Have Attended Special Class in Six Large Industrial Communities, Unpublished Doctor's Dissertation, Boston University, 1948, p. 190.





teachers trained in guidance who will help to locate jobs and attempt to fit each individual to a job where he is reasonably sure of success; shop-work classes more functional for the boys, providing practical work such as auto-driving, cleaning and repairing cars, mending own clothing, etc.; definite instruction in hobbies, consumer education which will teach them to budget money, establish savings, and to avoid installment plan purchases; help in forming habits of selection of good pictures, radio programs, and stories; help in developing sense of pleasure in leisure reading; and "Closer relationships between the school and community organizations are to be indorsed so that each agency may work for the best interest of these youth."

From a study of four hundred forty-nine special-class pupils Lord<sup>45</sup> concluded that a surprisingly large number are successful both socially and vocationally.

McIntosh reported on a study of one thousand pupils who had graduated from the Jarvis School for Boys, a trade school for the non-academic adolescent boy. The survey showed that 65.2 per cent of the subjects were in the I. G. range from 66 to 80 with adult mental ages of 11 and 12 years.

Only 2.2 per cent of the men were unemployed; 1.1 per cent were in penal institutions; 44.2 per cent had been in the armed services;.....37.8 per cent were earning as much as or more than the average industrial worker in Toronto during 1947. The men with an I. Q. under 60 had a higher percentage of unemployed than the group as a whole, but many of them were steady at their work, were self-supporting, and were succeedingly amazingly well.....In the wage comparison of the 71 to 75 I. G. group with

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<sup>45</sup> Arthur B. Lord, "A Survey of Four Hundred Forty-nine Special Class Pupils," Journal of Educational Research, XXVII:108-114, October, 1931.



the 76 to 80 I. G. group, it was found that a difference of 10 points in the I. Q. scale made little or no difference in the amount of money earned. Other factors, such as emotional stability and personal drive, were as important as even 20 points in the I. Q. scale within the range of 65 to 95.<sup>46</sup>

His conclusions that these boys do take their places in the community as valuable citizens is in agreement with the thought of the majority of educational leaders today. He states that although they are not able to enter the professions nor to fill any complex positions in business, nevertheless they do enter a great variety of useful occupations in the industrial world and are as steady at their work and retain their positions as well as the average worker.

Reference has been made to several studies dealing with the adjustment of special-class pupils. Now we shall consider a study of special classes and recommendations for their improvement.

As a result of a study of twenty-six special classes for mentally retarded children, Johnson reached the following conclusions:

There would seem to be a need of more careful diagnosis of pupils before placing them in Special Classes, since the ratio of three boys to one girl appears to be out of proportion.

More emphasis might be placed on pupil participation through class and group discussion and varied activity.

More exhibits and displays might be used and thereby concrete experiences might be increased.

Arts and crafts, extended to more functional areas of learning such as regular repair work and common household jobs.

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<sup>46</sup> W. J. McIntosh, "Follow-Up Study of One Thousand Non-Academic Boys," Journal of Exceptional Children, 15:191, March, 1949.





Placement, and follow-up of pupils, might well become a part of every Special Class.<sup>47</sup>

## V. SUMMARY

A summary of the research shows that, when the personality adjustment of the sub-normal child is satisfactory, his school achievement tends to progress at a rate comparable with his ability. A better understanding of his needs, abilities, interests, and attitudes is necessary if one is to know the child as an entity and as an individual. To gain this information one must go beyond the schoolroom walls, into the environment from which the child comes.

No one method is recognized as "best" for every child. It is, however, important that many concrete experiences should be presented to the child in order that he may learn as many habitual responses to life's situations as possible. Much drill and repetition are imperative if real learning is to take place. The majority opinion is that, given adequate instruction, the average special-class pupil will be able to take his place in the community as a self-respecting and self-supporting individual. Wallen<sup>48</sup> states, "Whether the educational competency level of mentally deficient children can be raised by more efficient methods of instruction has not been definitely proved but the evidence seems rather negative."

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<sup>47</sup> Anna Catherine Johnson, A Comparative Study of Twenty-Six Special Classes for Mentally-Retarded Pupils, Unpublished Master's Thesis, Boston University, 1947, p. 145.

<sup>48</sup> Wallen, op. cit., p. 86.



Many of the leading educators agree with this statement, but Schmidt<sup>49</sup> has reported a study showing a pronounced improvement in mental ability as evidenced by raised I. Q.'s.

X In an attempt to measure the educational growth of a special-class group, made up of children of widely varying abilities, social background, and emotional needs, the procedure as described in the following chapter was carried out.

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<sup>49</sup> Schmidt, op. cit.





## CHAPTER III

## PROCEDURES AND TECHNIQUES

The special class, in which this study was carried out, is in the Levi F. Warren Junior High School, West Newton, Massachusetts. The total school population, which is comprised of seventh, eighth, and ninth grade pupils is approximately 780. The socio-economic level of the community is high, an important factor in determining the number of children who are referred to the special class in the public school.

The total number of children who were referred to the special class, or helping class as it is sometimes called, for the year was twenty-two. Of this number, nine were enrolled as special-class children. The classroom in which the special help was given was their home room, and the teacher in charge was the special-class teacher. The remaining thirteen children had regular home rooms and were enrolled as regular pupils, coming to the special-class room for certain periods during the day for help. The number of periods which each child spent in the helping class was determined by his specific needs. Because of this factor, some children spent only one period a day, while others spent three or four out of their regular classes.

The children who were enrolled as special-class pupils were, in general, those whose mental retardation was such that they would have been unhappy in a classroom with children of normal intellectual ability and would, because of their limitations, both mental and emotional, have hindered the regular class work.



The children who were referred for special help were usually mentally retarded, but such was not always the case. Two children were in need of help because of language difficulties, and three were educationally retarded but of normal intellectual ability.

Each child's program was developed individually, according to his specific needs. As was indicated above, those children who had regular home rooms came to the special class for the specific help which they needed. The same plan was used with those who were enrolled as special-class pupils, in that they went to the regular classes whenever their interests, needs, and abilities made such a plan feasible.

In considering the group as a whole, it is at once evident that there was great diversity from many points of view. The group was made up of sixteen boys and six girls, some of whom had always been in a special class and some who had not received special help below the junior high school level; there were children from the seventh, eighth, and the ninth grades; the chronological age range as of October 1, 1948, was from 13 years, 0 months, to 16 years, 7 months; their mental age range at the time of the Binet testing was from 6 years, 8 months, to 14 years, 2 months; and the obtained I. Q. range was from 45 to 109. The number of children who were in the special-class group fluctuated from period to period with the smallest number being four and the largest number at any one time being thirteen with an average of nine pupils per period. Because these children were from different grade levels and different divisions within the same grade, the class groupings differed not only from period to period, but also from day to day, so that, during the week, there were





thirty-two different pupil groups with only one group meeting more than once. This was a small group which met four times a week.

The two pupils who were referred to the special class because of language difficulties and one other pupil were transferred to other schools early in the year due to the fact that their parents moved to other sections of the city, and one pupil entered too late to be included in this study. The group with which this study is concerned, therefore, is made up of the eighteen remaining children.

### I. THE TESTING PROGRAM

The testing was done by the special-class teacher, and, as there was no time set aside for such a program, it was fitted into the regular schedule when conditions were such that it could be conducted efficiently and according to standardized procedures.

Two tests of mental ability were administered. The one which is given greater significance in this study is the Revised Stanford-Binet Scale--Form L,<sup>50</sup> which is an individual test. The Pintner General Ability Tests: Verbal Series<sup>51</sup> were administered in order to determine the difference in I. Q. scores obtained on group tests as compared with those obtained on individual tests for retarded children. The ratio method was used in determining the I. Q.'s on the Pintner Tests.

As the primary purpose of the study was to evaluate the educational

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<sup>50</sup> Terman and Merrill, op. cit.

<sup>51</sup> Pintner, Cunningham, and Durost, op. cit.



growth of this group of retarded children, two forms of The Metropolitan Achievement Tests<sup>52</sup> were given, one at the beginning of the study and the other at the close. The period between the two tests was approximately six months, except in those instances where a child was late in entering the class or was to leave the group, in which cases the tests were administered at the most appropriate times.

## II. INSTRUCTIONAL METHODS

Instruction in a special class is primarily of an individual nature, due to the various levels of academic achievement in the group, as well as the varying abilities and the different social, physical, and emotional needs as evidenced by each child. The necessity of individual instruction was increased in this study, due to the fact that only one group of children met more than once as a unit during the week. This fact eliminated the possibility of effective unit work, developed on various levels of ability.

No single method of instruction was used for any subject, but rather a variety of methods, in order that the same material might be repeated without the danger that it become monotonous. Concrete experiences were used whenever possible as well as pictures, stories, and exhibits of various kinds.

The most important learning which takes place in a special class is not the type that is measured in a study of this kind. More important

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<sup>52</sup>Allen, and others, op. cit.





than the educational growth is the achievement of greater social maturity and poise, the ability to get on more happily with others, and the feeling of being an important member of a social group. The common everyday courtesies were practiced constantly, because it is only when they become habitual with him that the mentally handicapped child will use these acts which are his most important passports for social acceptance.

Many of the children had poor speech habits due to faulty articulation and enunciation. Tongue twisters were employed in an effort to improve the speech habits, as well as poems such as "The Pirate Don Durk of Dowdee," "Little Orphan Annie," and others which appeal to children and offer an opportunity for oral interpretation.

In the language areas much time was spent on oral work, good conversational habits, telling experiences, acknowledging introductions, as well as taking turns and letting the other person express his opinions, not interrupting and not contradicting others. The written work included such items as learning to write correctly names and addresses, writing simple letters, both social and business, filling in forms such as checks, money orders, and advertisement forms.

The emphasis in spelling was, first of all, on those words most frequently used. Words which were misspelled in written work were studied as well as other words for which a child showed the need or desire of learning.

Every child was encouraged to listen to the news broadcasts and to share with the group the information gained. Current events were discussed with constant reference to maps and globe in order to clarify relationships



of size, distance, and location. Whenever possible, world happenings were viewed with a consideration of the effect which they might have upon our state and nation.

The state of Massachusetts, together with the New England area, was studied in greater detail than other parts of the country. The boundaries, elevation, climate, natural resources, and industries, together with a consideration of the effect which they exert on each of us, formed the basis of much of our work in social studies.

In the area of arithmetic much time was spent on time relationships, telling time by the clock, knowing the date of the month, birth date, and being able to write each correctly, and also the meaning and use of simple measurements such as dozen, foot, quart, and mile. As a knowledge of the basic skills is necessary for every child, diagnostic tests in the simple processes were given to each one. In a notebook kept for that purpose, he kept a record of the fundamental facts which he missed. These served as material for his individual drill period and also proved a means of enabling him to check his own progress. In this subject, as in all others, each child started at his own level of achievement and went on from that point, according to his ability. Practical application of arithmetic was the chief aim for all children.

No basal test was used in the reading program, but each child worked at his own rate, in a book that seemed to best meet his needs. Phonics, one of the most important basal skills, was emphasized in each child's program, as well as comprehension skills, ability to note details, ability to summarize material read, and ability to enrich school experiences by





experiences outside of school. Whereas phonics was stressed with all children, the last named skills were developed whenever the child was able to cope with them.

### III. THE CASE STUDY

In each case study an attempt has been made to bring together all the pertinent information concerning the individual child and to present it in such a way that he can be seen apart from, and yet at the same time the product of, his environment.

The most important source of information was the child, himself, his abilities, his limitations, and his responses to various situations. The home visits provided another valuable source of information, second only to that obtained from direct contact with the child. Other sources of data, not necessarily in their order of importance, were those obtained from the testing program, from the cumulative school records, from reports of the school doctor and school nurse, and from reports of classroom teachers. All the information which was used in the case studies is information which the classroom teacher should have for every child under her guidance.

It was assumed that a better understanding of a child would make possible a planned program which would more adequately meet his individual needs and, therefore, result in greater educational growth.

In order to protect the child's identity, his own name has not been used in the case study.



CHAPTER IV  
CASE STUDIES





## ROY BARCARDI

Date of Birth: March 27, 1933  
Date of Testing: October 21, 1948  
C. A. 15 years - 7 months  
M. A. 6 years - 8 months  
Obtained I. Q. 45

Roy is a well-built, physically mature boy of sixteen years. He wears glasses because of a slight bilateral squint. His face is badly scarred due to an accident which occurred a year ago. He apparently rode his bicycle in front of an oncoming automobile and was hit in such a way that he was thrown through the windshield. His face was terribly lacerated, one ear was nearly severed, and one leg fractured above the knee. Prominent scars remain on his face in spite of extensive plastic surgery, and he walks with a decided limp as the injured leg is slightly shorter than the other. His fingernails are so closely bitten that there is little nail visible. A characteristic mannerism is the rubbing of the side of his face with the forefinger of the right hand, an action which appears to be unconsciously done. His speech is difficult to follow, due partly to its guttural quality and partly to the lack of continuity of thought.

This boy was born the third of four children. A brother and a sister who are older than Roy are well-adjusted, self-supporting members of the community, while the youngest sibling, a boy, is now in the seventh grade and one of the home-room leaders. The parents, who are of Italian origin, are sober, industrious people. They live in one of the recently developed sections of the city and own their own home, which is attractively furnished. The home atmosphere and the poise and understanding of the



parents in this situation are above average. Mr. Barcardi, who for some time has been employed by the city in the maintenance department, has been able to provide his family with a comfortable home. It is beginning to be a source of trouble to both Mr. and Mrs. Barcardi, however, that the time may soon come when they will be no longer able to care for Roy. The extent of this boy's limitations is realized by his mother who can see the possible difficulties into which he could be drawn if it were not for careful home supervision. Mr. Barcardi, on the other hand, is reluctant to acknowledge these limitations and to face reality in the acceptance of future plans for the boy. These differences were brought into clear relief during an afternoon home visit with both parents. In the attempt to try to plan for the future, one came again to the realization of the problems which parents of mentally handicapped children face and the comparatively few areas of help which are offered to them. A private school for this boy is beyond the financial means of the parents. He cannot go to trade school because of the type of his limitations, and because of his age it is doubtful whether he should be kept in the junior high school more than one year longer. With these considerations in mind and also realizing that better than idly roaming the streets would be a situation in which Roy's abilities would be developed in a constructive program, the possibility of one of the state schools was suggested. Whether this suggestion will be carried out remains to be seen.

Roy was given the Stanford-Binet: Form L test in 1938, at which time he was 5 years and 1 month chronologically. The tester commented that he was a tiny boy, undeveloped in every way. His voice was weak and withdrawn, and due to the fact that he was unable to repeat syllables even





at the three-year level, it was impossible to obtain a valid I. Q. He was tested again at the chronological age of 6 years and 10 months, at which time an I. Q. of 71 was obtained. The Revised Stanford-Binet: Form L was administered to Roy on October 21, 1948, at which time his chronological age was 15 years and 7 months, his mental age 6 years and 8 months, and an I. Q. of 45 was obtained. Roy entered actively into the test situation with much self-confidence. His attention and interest were maintained throughout the testing period, so it is felt that the I. Q. obtained is a valid one. The nature of the test administered requires a basal year to be established at the point at which all test items are passed. Therefore, the basal year established in this test performance was the VI year level. The range on the test went from the VI year level to the IX year level, at which point all tests were failed. The following report gives a detailed analysis of successes and failures throughout the test:

<u>Level</u>	<u>No. of Tests Passed</u>	<u>Type of Item</u>	<u>Credit Allowed</u>
VI	all tests passed	vocabulary copying a bead chain from memory mutilated pictures number concepts pictorial likenesses and differences maze tracing	12 months <u>Basal Year</u>
VII	3 tests passed	picture absurdities comprehension opposite analogies	6 months
VIII	1 test passed	comprehension	2 months
IX	no tests passed		no credit
Total - 6 years and 8 months			



The following table indicates failures:

<u>Level</u>	<u>No. of Tests Failed</u>	<u>Type of Item</u>
VII	3 tests failed	similarities copying a diamond repeating 5 digits
VIII	5 tests failed	vocabulary memory for stories verbal absurdities similarities and differences memory for sentences
IX	all tests failed	

No outstanding failures are noted in this test, but rather a limited area of achievement with a rapid decrease of successes as the items increase in difficulty. The results reveal Roy to be 8 years and 11 months retarded in mental ability. According to the classification applied to Intelligence Test Scores, he may be classified as definitely feeble-minded. In general, he approaches the typical six or seven year old child in ability and judgement.

The Pintner-Cunningham Primary Test: Form A, Verbal Series, was given to Roy February 7, 1949, at which time his chronological age was 15 years and 11 months, his mental age 5 years and 2 months, and the obtained I. Q. 33. The apparent discrepancy between the two I. Q.'s is understandable due to the fact that the first is an individual test and the second is a group test.

In October, 1948, the Primary I Battery: Form R of the Metropolitan Achievement Tests was given to Roy with the following results:

<u>Test</u>	<u>Grade Equivalent</u>
Word Pictures	1.5
Word Recognition	1.2





<u>Test</u>	<u>Grade Equivalent</u>
Word Meaning	1.2
Average Reading	1.3
Numbers	2.1
Average Achievement	1.5

The same test, Form S, was given after a period of six months, in April, 1949, with results as follows:

<u>Test</u>	<u>Grade Equivalent</u>
Word Pictures	1.4
Word Recognition	1.6
Word Meaning	1.7
Average Reading	1.7
Numbers	2.3
Average Achievement	1.8

A comparison of the results from these two tests shows a gain of 4 months in average reading achievement and a gain of 2 months in numbers, making a gain in average achievement of 3 months. This indicates that Roy is achieving to his maximum ability. His present grade level of 1.8 corresponds to the predicted final school age of children with I. Q.'s of 45 and mental ages of 6 years and 8 months.

In Roy's case, as in all others, there are many areas in which growth has taken place which cannot be measured. One example of this in the present case is learning to write his name. In the fall of 1947 this boy could print his given name, but he could not spell or write it. Now he is able to write both his given and surname, also his home address. Roy does not realize his limitations, but any achievement thrills him. After a great deal of drill on some simple words they were, later in the period, used in sentences which he read without help. With a note of deep satisfaction in his voice he said, "I didn't know I was so smart."



This boy is a good worker and, when given some task which he can do, is conscientious and reliable in its performance. He is, however, lacking in judgement and reasoning ability and has no comprehension of time sequence or money values.

Summary. This is a child who is definitely feeble-minded. He has shown satisfactory progress in that he has achieved an educational level of grade 1.8 which corresponds to his mental age level of 6 years and 8 months. It is doubtful whether he will ever be able to be self-supporting in the community, but because of his characteristics of reliability, conscientiousness, and good work habits he could, in all probability, learn a simple skill which would not only increase his sense of achievement but would also be a contribution to the community. For this reason the suggestion of state school placement was suggested to his parents.





## NORMA BENELLO

Date of Birth: February 24, 1933

Date of Testing: March 2, 1949

C. A. 16 years

M. A. 7 years

Obtained I. Q. 47

Norma is a tall, awkward-appearing girl of sixteen years. Her posture is poor, and she walks with head slightly lowered and shoulders thrust forward. Her eyes and face, when in repose, are void of expression but become animated when her interest is aroused. Her speech is indistinct and delivered in a jerky, uneven manner. Norma's physical growth and maturity are normal for a girl of her age. She has had the usual childhood sicknesses with measles occurring during her first year. No complications were observed as a result of these illnesses, all of which were mild in nature.

Norma was seen by the school psychologist in 1940, who at that time recommended that she remain in the school which she was then attending as long as she was not a menace to the other children or too great a handicap to the teaching situation. The recommendation was followed and Norma remained in the parochial school until 1944, at which time she was transferred to the public schools and placed in a special class. She took very little part in the group activities of the class, preferring to remain by herself. Frequently, while sitting at her desk, she would pound her head repeatedly on it. In June, 1947, Norma's teacher wrote the following comment, "Norma is a very quiet, shy girl, so much so that it takes much coaxing to get an answer to a question. During the school year I have



never seen her once speak unless spoken to."

It was in the fall of 1947 that I first met Norma. She was, as the records had indicated, quiet and withdrawn, a passive onlooker but never an active participant in group activities. Although she responded willingly when asked to perform some task about the room, she never noticed anything needing attention. During the fall and early winter months she never spoke voluntarily, and while her face would register pleasure, she did not laugh as the other children did. It was, therefore, a thrilling experience when I heard Norma's first spontaneous laugh. She had forgotten herself in the fun of playing a game at the special-class valentine party. Soon after this she started to talk with the other children, and it was only a short time before she was talking as freely in the classroom as any child. In fact, she became a "chatterer" and would often follow me about the room talking about home experiences, movies she had seen, and the things she planned to do. It was at approximately the time that Norma started to express herself freely that the practice of masturbation, which had at times been excessive, began to lessen. By the end of the school year it had practically stopped, and none has been observed during the current year.

Norma is of Italian parentage and one of five siblings, three of whom are older than she. The three older siblings, two of whom are girls, are self-supporting. The girls live at home whereas the brother, who is married, lives next door. The youngest child, an attractive little girl who has made good school progress, will enter the seventh grade in September. Mr. Benello is a laborer who for many years was in the employ of the city but is at present unemployed. Mrs. Benello has, since Norma's





birth, suffered from severe lameness which has been diagnosed as arthritis but which the doctors have been unable to relieve. An afternoon's visit in the home helped to confirm the impression of family solidarity which had been received from Norma's various comments. Mrs. Benello and the youngest child were alone when I called, but we were soon joined by Norma, who had been on an errand for her mother. Within a few minutes the daughter-in-law with her little boy, a niece with her two small children, and Mr. Benello joined us. Instead of discussing future plans for Norma, the call became purely social in nature. The rapport which was established, however, was of far greater value than the primary purpose of the visit, a matter which could be attended to at a later date.

The Benellos live in an average section of the city in one of the older houses which is of good construction but badly in need of repairs. They "bought" the house two years ago and are gradually doing the repair work themselves. Their pride in ownership and accomplishment was apparent as shelves and cupboards which Mr. Benello had made were pointed out to me, but also apparent was the fear that they might be financially unable to keep the house if times became "hard."

Norma was given the Stanford-Binet Intelligence Test: Form L on March 2, 1949. At this time an I. Q. of 47 was obtained with the chronological age 16 years and the mental age 7 years. She entered into the test situation willingly but without enthusiasm, maintaining a high attention level throughout the testing period. This test requires a basal year to be established at the point at which all test items are passed. The basal year established in this test performance was the VI year level. The range on the test went from the VI year level to the X year level, at which point



all test items were failed. The following report gives a detailed analysis of successes and failures throughout the test:

<u>Level</u>	<u>No. of Tests Passed</u>	<u>Type of Item</u>	<u>Credit Allowed</u>
VI	all tests passed	vocabulary copying a bead chain from memory mutilated pictures number concepts pictorial likenesses and differences maze tracing	12 months <u>Basal Year</u>
VII	4 tests passed	picture absurdities copying a diamond comprehension opposite analogies	8 months
VIII	1 test passed	memory for stories	2 months
IX	1 test passed	memory for designs	2 months
X	no tests passed		no credit

Total - 6 years and 12 months  
7 years

The following table indicates failures:

<u>Level</u>	<u>No. of Tests Failed</u>	<u>Type of Item</u>
VII	2 tests failed	similarities repeating 5 digits
VIII	5 tests failed	vocabulary verbal absurdities similarities and differences comprehension memory for sentences
IX	5 tests failed	paper cutting verbal absurdities rhymes making change repeating 4 digits reversed
X	all tests failed	





There are no outstanding successes or failures noted in this test but rather a gradual decrease in the number of items passed due to the increasing difficulty of the tests. The results reveal Norma to be nine years retarded in mental development. According to the classification applied to Intelligence Test Scores, she may be classified as feeble-minded.

At this point it is interesting to note that Norma was given the Stanford Revision Binet-Simon test on January 1, 1940, at which time her chronological age was 7 years and 11 months, her mental age 4 years and 11 months, and the obtained I. Q. was 62. On January 3, 1944, she was given the Revised Stanford-Binet: Form L with the obtained I. Q. 60, chronological age 10 years and 10 months, and mental age 6 years and 6 months. The results obtained indicate a decrease of four I. Q. points between 1940 and 1944 and a decrease of nine I. Q. points between 1944 and 1949.

The Pintner-Cunningham Primary Test: Form A, Verbal Series, was administered to Norma on February 10, 1949. Her chronological age at this time was 16 years, her mental age 8 years and 5 months, and the I. Q. obtained was 53. In general, the intelligence quotients obtained from group tests in this study are lower than those obtained from individual tests such as the Stanford-Binet. In Norma's case, however, the reverse is noted, as she scored six points higher on the group test.

The following results were obtained in the fall on the Primary I Battery: Form R of the Metropolitan Achievement Tests:

<u>Test</u>	<u>Grade Equivalent</u>
Word Pictures	2.0
Word Recognition	2.0



<u>Test</u>	<u>Grade Equivalent</u>
Word Meaning	2.0
Average Reading	2.0
Numbers	2.1
Average Achievement	2.0

It was necessary to retest Norma after a period of four months due to the fact that she was to be withdrawn from school when she reached her sixteenth birthday. The results obtained from the Primary I Battery: From S of the Metropolitan Achievement Tests were:

<u>Test</u>	<u>Grade Equivalent</u>
Word Pictures	2.1
Word Recognition	1.9
Word Meaning	2.1
Average Reading	2.1
Numbers	2.6
Average Achievement	2.2

A comparison of the results of these two tests shows that for the four-month period Norma's average reading achievement remained practically constant, but her arithmetic score was raised five months, resulting in an average achievement gain of two months.

A request was received from Mrs. Benello when Norma reached her sixteenth birthday, requesting that she be dismissed from school in order to help her at home. Mrs. Benello was at this time confined to her bed or chair the greater part of the day because of her lameness and Norma's help was needed.

Summary. We have a girl who is 16 years chronologically but only 7 years mentally, who has achieved educationally as much as she is capable of doing. Her school experiences are now of the past, but although one may regret the limitations which are hers through no fault of her own,





there is a measure of satisfaction to be derived from the knowledge that this girl will, in all probability, have a place in the life of her family as long as she needs it. Although limited financially and educationally, this family group will give Norma love, a sense of security, and a knowledge that she is needed to perform her share of the group's responsibilities.



## THELMA AND FRED MARCONI

ThelmaFred

Date of Birth: October 3, 1934  
Date of Testing: October 18, 1948  
C. A. 14 years - 1 month  
M. A. 7 years  
Obtained I. Q. 51

Date of Birth: October 3, 1934  
Date of Testing: October 21, 1948  
C. A. 14 years - 1 month  
M. A. 9 years - 10 months  
Obtained I. Q. 72

Thelma and Fred are twins, the youngest in a family of five living siblings. They are of Italian descent, the parents having come to the United States from Italy when the two older children were of pre-school age. The eldest, a girl, is married and has a small child. She lives within walking distance of her parents' home, and there is apparently a close bond between the two families. An older brother drives a truck, is self-supporting, and lives at home. The third sibling, a girl, completed junior high school, is now self-supporting, and also lives at home.

The Marconi family lives approximately a mile from the village square in a below average section of the city. Their house is comfortable but badly in need of repair, a task in which every member of the family participates. There is ample play and garden space about the building, and the state of cultivation was pointed out to me with great pride. I had called Mrs. Marconi previous to the day when I made my first home visit for the purpose of determining whether it would be convenient for her to see me at that time. Although she knew of the appointment, it was Fred who opened the door and showed me into the kitchen where his mother was busily peeling potatoes at one end of the table. The very apparent restraint seemed to be the result of uncertainty and embarrassment rather





than antagonism. It was necessary to break down this barrier first of all, which proved much easier than I expected. As a result of that visit, the problems of the twins were viewed in a new perspective. Mr. Marconi, a watchman at the Waltham Watch factory, had been laid off when the factory closed. The fact that his pay had stopped, except for the social security payments, was a source of great worry. No longer did the mother get deserts for the family as they cost too much. The main items of food were potatoes, bread, and macaroni, according to Mrs. Marconi. It soon became apparent that this was an unhappy, disturbed woman. It was often difficult to follow all that she said as she spoke rapidly and in broken English. She said she had no friends here but had had many before they moved to West Newton in 1944. She feared that she would have to have an operation soon, and she did not know where the money would come from. Interspersed throughout her conversation was the expression, "Oh, I am so ashamed." As I was to leave, she insisted that I should have a cup of coffee, whereupon Thelma hurriedly put water on to boil and Mrs. Marconi washed each dish before placing it on the table. The refreshments were fresh and delicious, but the fact that there was no butter for the bread and no sweets caused a reiteration of, "Oh, I am so embarrassed." It was, however, with much pride that I was shown the garden, the fruit trees, and the grapevine, as well as the house from cellar to attic. An invitation to come again in the spring when everything is pretty was given, as well as an invitation to come to supper.

Thelma walked to the square with me that afternoon, and as we left the house, Mrs. Marconi came to the door and waved to us as we went down the street. It was good to feel that the restraint which had existed



earlier had been dissipated, but I left with a feeling of sadness. There were apparently undercurrents here which would influence Thelma and Fred and with which I was unable to deal. I could, as a result of this visit, understand their behavior more clearly, however.

The children have been coming to school less carefully groomed than formerly. They tell of their mother feeling sick and needing to go to bed, and recently they have been more concerned as she has had "spells." This situation has been reported to the school nurse who will investigate the seriousness of the conditions. Whatever the cause of the sickness may be, the effect upon Thelma and Fred is very apparent. They are more restless and irritable, and it is plain to see that they are disturbed without realizing the reason for their feelings of unrest.

#### THELMA

Thelma is an attractive girl with a clear complexion and dark curly hair. She is friendly and cooperative, anxious to please, but limited in the things which she is able to do. Thelma is a child whom one cannot "overlook" as she is always in evidence. She is demanding of attention, either that of the teacher or of some child in the room. Her voice is loud, whether in a room or on the street, and a reminder to speak softly has slight effect. Her posture is poor, both sitting and standing, and she walks with a swinging gait and shoulders slightly forward. She is accepted by the class group although the members often get impatient with her because of her constant interruptions. There is constant bickering between Thelma and Fred, contradictions, and tattling. Fred, because of his greater mental maturity, often challenges Thelma's statements and laughs





at her mistakes. It is impossible to reason with Thelma and her "I'm sorry," while sincere at the time, has no understanding back of it.

Thelma entered school in September, 1941. She was transferred to the West Newton schools in January, 1944, at which time she was in the first grade. In February she was given the Stanford-Binet: Form L, at which time an I. Q. of 62 was obtained. In March of that year Thelma was placed in a special class.

On October 18, 1948, the Stanford-Binet Intelligence Test: Form L was given to Thelma. Rapport was established easily and she enjoyed the various test activities. She was self-confident and perfectly assured in her social contacts with the examiner. Although she was easily distracted by her own ideas, it was an easy matter to bring her attention back to the task at hand. The nature of the test requires a basal year to be established at the point at which all test items are passed. The basal year established in this test performance was the VI year level. The range on the test went from the VI year level to the X year level, at which point all tests were failed. The following report gives a detailed analysis of successes and failures throughout the test:

<u>Level</u>	<u>No. of Tests Passed</u>	<u>Type of Item</u>	<u>Credit Allowed</u>
VI	all tests passed	vocabulary copying a bead chain from memory mutilated pictures number concepts pictorial likenesses and differences maze tracing	12 months <u>Basal Year</u>
VII	4 tests passed	picture absurdities copying a diamond opposite analogies repeating 5 digits	8 months



<u>Level</u>	<u>No. of Tests Passed</u>	<u>Type of Item</u>	<u>Credit Allowed</u>
VIII	1 test passed	memory for stories	2 months
IX	1 test passed	repeating 4 digits reversed	2 months
X	no tests passed		no credit

Total - 6 years and 12 months  
7 years

The following table indicates failures:

<u>Level</u>	<u>No. of Tests Failed</u>	<u>Type of Item</u>
VII	2 tests failed	similarities comprehension
VIII	5 tests failed	vocabulary verbal absurdities similarities and differences comprehension memory for sentences
IX	5 tests failed	paper cutting verbal absurdities memory for designs rhymes making change
X	all tests failed	

No outstanding failures are noted in this test, but rather a very narrow range of ability and a rapid decrease of successes as the test items increased in difficulty. The results of the test show Thelma to be 14 years and 1 month chronologically and 7 years mentally with an obtained I. Q. of 51. She is, therefore, 7 years and 1 month retarded, mentally, and, according to the classification applied to Intelligence Test Scores, she may be classified as definitely feeble-minded with a final grade prediction of second or third grade.

The Pintner-Cunningham Primary Test: Form A, Verbal Series, given to Thelma on February 10, 1949, when her chronological age was 14 years





and 4 months, showed a mental age of 8 years and 5 months with an obtained I. Q. of 59.

In October, 1948, the following results were obtained with the Metropolitan Achievement Tests, Primary I Battery: Form R:

<u>Test</u>	<u>Grade Equivalent</u>
Word Pictures	2.6
Word Recognition	2.7
Word Meaning	2.8
Average Reading	2.7
Numbers	2.7
Average Achievement	2.7

Form S of the same test was given in April, 1949, in order to determine the educational growth during the preceding six-month period. The results follow:

<u>Test</u>	<u>Grade Equivalent</u>
Word Pictures	2.7
Word Recognition	2.6
Word Meaning	3.1
Average Reading	2.8
Numbers	3.3
Average Achievement	2.9

A comparison of the results of these two tests shows a gain of only one month in average reading achievement and a gain of six months in numbers, making an average gain of two months in total grade achievement. According to Thelma's I. Q. of 51, one could expect a gain of approximately three months during the six-month period. She has, however, reached the level of achievement which is predicted for children with a mental handicap such as hers.

Summary. This is a girl of fourteen and one-half years, chronologically, but only seven years mentally. She is physically mature but



her interests are those of a child. With the lack of reasoning power and good judgement on her part and the absence of understanding supervision at home, one fears that her friendliness and affection, together with a desire to win approval, may lead to trouble.

Thelma's educational achievement is consistent with her mental age, and although it is to be expected that she will continue to show educational growth, it is safe to assume that the level will not be raised appreciably.

#### FRED

Fred is smaller than his sister and does not show signs of physical maturity. His motions are very quick and he is seldom still. While sitting at his desk, either feet or fingers are tapping staccato sounds, and there is usually an audible undertone or whistling sound to be heard, even when he is working with concentration. In fact, this boy seems unable to be quiet and at ease. He is an untiring talker, interrupting and contradicting other children regardless of the subject or the occasion. Fred is, however, a friendly, likeable boy and well accepted by the group members. He cannot leave the others alone but annoys them by taking things from their desks, closing their books as he goes past and disturbing the class generally. His work is seldom as interesting for him as that of his neighbors, which he follows closely. Fred registers very clearly the emotions he feels. Either he is sunny and smiling or sulky and vindictive. When crossed, his face assumes an ugliness seldom seen in children, but even in such moods a few words, lightly spoken, will usually bring a smile and the former mood disappears. In spite of these characteristics, Fred is a very





friendly and affectionate boy. He is accepted and liked by the children of his group who seem to overlook these disturbing traits.

Fred, as well as Thelma, had whooping cough when only two months of age, chicken pox at five years, measles at six years, German measles at seven years, and mumps at eleven years of age. There is a large scar on the side of his face which was caused by a burn when he was an infant. He pulled an electric iron from the edge of a table and received a burn which barely escaped his eye and left a scar covering the greater part of his cheek.

Fred entered school in September, 1941, in a near-by city. He was transferred to the West Newton schools in January, 1944, at which time he was in the first grade. In February he was given the Revised Stanford-Binet: Form L, at which time an I. Q. of 77 was obtained, with a mental age of 7 years and 2 months. In March of that same year he was placed in a special class.

On October 21, 1948, the Revised Stanford-Binet Intelligence Test: Form L was given to Fred. He was enthusiastic and happy during the testing period. This test requires a basal year to be established at the point at which all test items are passed. The basal year established in this test performance was the VII year level. The range on the test went from the VII year level to the Average Adult level at which point all tests were failed. The following report gives a detailed analysis of successes and failures throughout the test:

<u>Level</u>	<u>No. of Tests Passed</u>	<u>Type of Item</u>	<u>Credit Allowed</u>
VII	all tests passed	picture absurdities similarities copying a diamond	



<u>Level</u>	<u>No. of Tests Passed</u>	<u>Type of Item</u>	<u>Credit Allowed</u>
VII (cont.)		comprehension opposite analogies repeating 5 digits	12 months <u>Basal Year</u>
VIII	4 tests passed	vocabulary memory for stories verbal absurdities comprehension	8 months
IX	4 tests passed	verbal absurdities rhymes making change repeating 4 digits	8 months
X	2 tests passed	picture absurdities vocabulary	4 months
XI	3 tests passed	verbal absurdities abstract words problem situation	6 months
XII	1 test passed	abstract words	2 months
XIII	1 test passed	problems of fact	2 months
XIV	2 tests passed	orientation abstract words	4 months
Average Adult	no tests passed		no credit
			Total - 7 years and 34 months 9 years and 10 months

The following table indicates the failures:

<u>Level</u>	<u>No. of Tests Failed</u>	<u>Type of Item</u>
VIII	2 tests failed	similarities and differences memory for sentences
IX	2 tests failed	paper cutting memory for designs
X	4 tests failed	reading and report finding reasons word naming repeating 6 digits





<u>Level</u>	<u>No. of Tests Failed</u>	<u>Type of Item</u>
XI	3 tests failed	memory for designs memory for sentences similarities: three things
XII	5 tests failed	vocabulary verbal absurdities response to pictures repeating 5 digits reversed Minkus completion
XIII	5 tests failed	plan of search memory for words paper cutting dissected sentences copying a bead chain from memory II
XIV	4 tests failed	vocabulary induction picture absurdities ingenuity
Average Adult	all tests failed	

It will be noted from the above tables that Fred missed one memory item at the VIII year level, two at the IX year level, and all at the X year level and beyond, thus showing a definite weakness in both visual and auditory memory.

The results of the test show Fred to be 4 years and 3 months retarded in mental development. His chronological age is 14 years and 1 month, his mental age 9 years and 10 months, and he obtained I. Q. 72. According to the classification applied to Intelligence Test Scores, he may be classified as having borderline deficiency. These children are sometimes classified as dull, but often as feeble-minded. The final school age prediction for this intelligence level is the fourth grade.

On February 7, 1949, Fred was given the Pintner-Durost Elementary Test, Scale I: Form A. The following readings were obtained at that time:



chronological age, 14 years and 4 months; mental age, 9 years and 1 month; I. Q., 62. In general, the I. Q. obtained on group tests such as the Pintner-Durost run slightly lower than those obtained on individual tests such as the Stanford-Binet, throughout this study.

In October, 1948, the Primary I Battery: Form R of the Metropolitan Achievement Tests was given to Fred. He scored as follows:

<u>Test</u>	<u>Grade Equivalent</u>
Word Pictures	2.6
Word Recognition	2.3
Word Meaning	2.0
Average Reading	2.3
Numbers	3.1
Average Achievement	2.5

Form S of the same tests was given in April, 1949, in order to determine the educational growth during the preceding six-month period. The following table gives the results obtained in the second testing:

<u>Test</u>	<u>Grade Equivalent</u>
Word Pictures	3.0
Word Recognition	2.6
Word Meaning	2.7
Average Reading	2.8
Numbers	3.7
Average Achievement	3.0

A comparison of the results of these two tests shows a gain of 5 months in average reading achievement and of 6 months in numbers, making a total gain in average achievement of 5 months. This gain is consistent with the educational growth to be expected over a six-month period for a child with an I. Q. of 72. It is, however, apparent that his reading achievement is below the level he should be able to attain. This is probably due, in part, to his poor auditory and visual memory. It indicates the necessity for intensive work in this area during the coming year.





Summary. Fred is a very disturbed boy. He annoys others, attracts attention by various undesirable means, and is demanding in his attitude. It would seem in Fred's case, as in that of his sister's, that this unrest is intensified by home conditions and not entirely due to his own physical and mental characteristics. These factors have an important bearing on his educational achievement, without doubt. He has made a gain in educational achievement of five months during the six-month period, a gain which is consistent with the expectations for a child with his mental capacity.



## BRUCE McKAY

Date of Birth: May 19, 1933  
Date of Testing: October 19, 1948  
C. A. 15 years - 5 months  
M. A. 8 years - 2 months  
Obtained I. Q. 56

Bruce is a tall, thin boy whose general appearance indicates a lack of proper food and sound health habits. Conferences with Bruce and home visits strengthened this impression and revealed no plans for balanced meals and sometimes no meals whatsoever, providing Bruce preferred to go to the movies, at which times a candy bar would suffice. Frequently this boy comes to school in an exhausted state following several nights of insufficient sleep due to the fact that he has attended several late movies or some member of the family has had a "party." At such times he is heavy-eyed, inattentive, and restless. He frequently complains of "heart-burn" and his teeth, which are badly in need of attention, are at the aching stage.

Bruce's date of birth has been in question due to the fact that the records, made out at the time of school entrance, give his birth year as 1932. This record, being based on a communication from Mr. McKay but unsubstantiated by a birth certificate, is disproved by a letter from the hospital where Bruce was taken at the age of five weeks for treatment. A check with the home concerning his birth date afforded no satisfaction from Mrs. McKay as she "could not remember" but she felt certain that Mr. McKay would know as "he remembers things." At this time the date corresponding to that in the letter from the hospital was given; therefore, the year 1933





was used in determining the chronological age for the testing program. A previous check at the City Hall had revealed that Bruce's birth had not been recorded.

The diagnosis at the time of hospitalization was "malnutrition with question of incomplete rotation of the intestines with partial obstruction." Excepting the early history of feeding difficulties, Bruce's health record has been a good one according to Mrs. McKay. He did have chicken pox, measles, and whooping cough after he started school, but with no noticeable after effects.

Bruce is a child of his mother's second marriage and the youngest of nine siblings. The family record is one of repeated court offenses and of undesirable conduct. One brother is under permanent custodial care because of various offenses and an inability to meet the requirements of community life. The mother, a very nervous and apprehensive woman, was born in Ireland. She can neither read nor write and appears wholly unable to cope with a child of Bruce's disposition. She is mentally inferior to Mr. McKay, to whom she refers all questions. Mr. McKay is a quick-spoken man and has, by his own admission, a violent temper. He is unable to work regularly because of ill health, and the doctor's bills which have accumulated appear to be a source of worry to him. In discussing punishment administered to Bruce, his father, with rising voice, told of "kicking him about the kitchen," an indication that he, too, is unable to understand the problems of this boy. It is evident that Bruce does as he wishes as far as his mother is concerned, but that he stands in fear of his father whose punishment is erratic and ineffectual.

The home of the McKays is in an average section of the city with



ample play space for children. The house is in good condition and comfortably furnished with convenient housekeeping equipment. Even though there are enough rooms so that Bruce could have one by himself, he shares his parents' sleeping room.

On October 19, 1948, Form L of the Revised Stanford-Binet Scale was administered to Bruce, at which time a score of 54 was obtained. His response to the test situation was splendid, and he entered actively into the tasks assigned. His attention was generally good although at times his own thoughts distracted him. It was, however, easy to bring his attention back to the work at hand.

A basal year was established at the VI year level at which point all the test items were passed successfully. The range on the test went from the VI year level to the XII year level where all test items were failed. The following report gives a detailed analysis of successes and failures throughout the test:

<u>Level</u>	<u>No. of Tests Passed</u>	<u>Type of Item</u>	<u>Credit Allowed</u>
VI	all tests passed	vocabulary copying a bead chain from memory mutilated pictures number concepts pictorial likenesses and differences maze tracing	12 months <u>Basal Year</u>
VII	4 tests passed	picture absurdities copying a diamond comprehension opposite analogies	8 months
VIII	2 tests passed	vocabulary comprehension	4 months

The following table gives a summary of the results obtained from the  
 analysis of the data obtained from the experiments conducted on the  
 effect of the concentration of the solution on the rate of reaction.  
 The results show that the rate of reaction increases with the  
 concentration of the solution. The rate of reaction is directly  
 proportional to the concentration of the solution. The rate of  
 reaction is also affected by the temperature of the solution. The  
 rate of reaction increases with the temperature of the solution.  
 The rate of reaction is also affected by the surface area of the  
 reactants. The rate of reaction increases with the surface area of  
 the reactants. The rate of reaction is also affected by the  
 presence of a catalyst. The rate of reaction increases with the  
 presence of a catalyst.

Concentration of solution	Rate of reaction	Temperature of solution	Surface area of reactants	Presence of catalyst
0.1 M	Low	25°C	Small	No
0.2 M	Medium	25°C	Small	No
0.3 M	High	25°C	Small	No
0.1 M	Low	35°C	Small	No
0.2 M	Medium	35°C	Small	No
0.3 M	High	35°C	Small	No
0.1 M	Low	25°C	Large	No
0.2 M	Medium	25°C	Large	No
0.3 M	High	25°C	Large	No
0.1 M	Low	25°C	Small	Yes
0.2 M	Medium	25°C	Small	Yes
0.3 M	High	25°C	Small	Yes



<u>Level</u>	<u>No. of Tests Passed</u>	<u>Type of Item</u>	<u>Credit Allowed</u>
IX	3 tests passed	paper cutting memory for designs making change	6 months
X	2 tests passed	word naming repeating 6 digits	4 months
XI	2 tests passed	memory for designs problem situation	4 months
XII	no tests passed		no credit
Total - 6 years and 26 months 8 years and 2 months			

The following table indicates failures:

<u>Level</u>	<u>No. of Tests Failed</u>	<u>Type of Item</u>
VII	2 tests failed	similarities repeating 5 digits
VIII	4 tests failed	memory for stories verbal absurdities similarities and differences memory for sentences
IX	3 tests failed	verbal absurdities rhymes repeating 4 digits reversed
X	4 tests failed	vocabulary picture absurdities reading and report finding reasons
XI	4 tests failed	verbal absurdities abstract words memory for sentences similarities
XII	all tests failed	

It will be noticed that Bruce's vocabulary is at the VIII year level.

No outstanding failures were noted except a failure on the verbal memory items beginning at the VII year level. The one exception to this is the



repeating of six digits at the X year level. He does, however, pass successfully the visual memory items at the XI year level.

The results of the test reveal this boy to be 7 years and 3 months below his chronological age in mental development. According to the classification applied to Intelligence Test Scores, he may be classified as feeble-minded.

The Pintner-Cunningham Primary Test: Form A, Verbal Series, was given to Bruce on February 10, 1949. On this general ability test he scored an I. Q. of 63 with a chronological age of 15 years and 9 months and a mental age of 8 years and 5 months.

The results of these two intelligence tests, one individual and the other a group test, indicate that Bruce's maximum academic achievement will not exceed, to any extent, third-grade level.

In order to determine his level of achievement in October, 1948, he was given the Primary I Battery: Form R of the Metropolitan Achievement Tests. His scores were as follows:

<u>Test</u>	<u>Grade Equivalent</u>
Word Pictures	3.1
Word Recognition	3.4
Word Meaning	3.3
Average Reading	3.3
Numbers	2.8
Average Achievement	3.2

The Primary I Battery: Form S of the Metropolitan Achievement Tests was given in April, 1949, after a period of approximately six months to measure the educational growth during that period. The results were:

<u>Test</u>	<u>Grade Equivalent</u>
Word Pictures	3.3
Word Recognition	3.3

...the ... of ...  
...the ... of ...  
...the ... of ...  
...the ... of ...

...the ... of ...  
...the ... of ...  
...the ... of ...  
...the ... of ...

...the ... of ...  
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...the ... of ...

...the ... of ...  
...the ... of ...  
...the ... of ...  
...the ... of ...



<u>Test</u>	<u>Grade Equivalent</u>
Word Meaning	3.4
Average Reading	3.4
Numbers	3.5
Average Achievement	3.4

A comparison of these test results shows a gain of 1 month in average reading achievement and 7 months in numbers, making a gain in average achievement of 2 months. A consideration of this boy's chronological age and his I. Q. will show that he has probably reached his academic achievement level.

Bruce's school experiences are nearly finished as his father plans to withdraw him from the class on his sixteenth birthday which falls on May 17. This, then, is the culmination of ten years of schooling, all of which have been in a special class. They have been happy years for Bruce. He has enjoyed the social contacts with the other children, the handwork, the stories, and the sense of achievement. One questions what the future holds for this boy who, although chronologically sixteen years of age, is only a child. He is nervous and fearful of any new situation. He is naturally gregarious but cannot get along with others for any length of time because of his teasing, silly talk and laughter, and immature actions. He is easily influenced, often in wrong doing, and, in order to escape punishment, untruthful. Bruce is a very generous boy and, having no appreciation of values, is an easy victim of those who wish to take advantage of him. He is over-affectionate and tends to force his attentions on those whom he admires regardless of their desires. There have been several times during the past year when he has annoyed girls by his advances. On one occasion his father gave him severe corporal punishment, and on another the teacher



was instructed to do whatever she wished as Mr. McKay was "through talking with him." Neither of these approaches will solve Bruce's problem which lies much deeper than punishment can reach. Few children have as deep an appreciation and love for flowers as Bruce. One feels that with an understanding adult he might be happy working with flowers, but whether he will be reliable enough for any type of work is doubtful.

Summary. Bruce is a boy who is approximately 16 years chronologically with a mental age of 8 years and 2 months. He is an appealing, likeable, and friendly boy, but he does not know how to get along with others. He is over-affectionate and anxious to please, traits which, due to his lack of judgement, make him easily influenced by others. He has achieved educationally as high a level as can be expected for a child with an I. Q. of 56. Socially and emotionally he is immature and in need of constant and understanding guidance, a need which shows little promise of being met due to the lack of insight on the part of his parents.





JACK JOHNSTON

Date of Birth: August 8, 1933  
Date of Testing: March 10, 1949  
C. A. 15 years - 7 months  
M. A. 9 years - 2 months  
Obtained I. Q. 62

Jack is a heavy set boy whose coordination is poor, causing him to walk awkwardly with body slightly thrust forward and arms swinging loosely. He has a round, full face and small eyes which are partly hidden behind thick glasses. His speech, which is slow and hesitant, is very difficult to follow due to the difficulty he has in the articulation of certain sounds. His tongue seems thick and unwieldy, and it is with difficulty that he controls the flow of saliva while talking. Jack's laugh is of an explosive nature which seems to break forth without his control when he is amused.

Jack was in the second grade before it was realized that there was practically no sight in his right eye. His mother reports that Jack had a fall when he was four years of age. He cut his head badly and was unconscious for a short time due to the fall, and it is to this incident that the parents trace the boy's retardation. Mrs. Johnston also stated that it was not until Jack started school and began to fall behind the other children of his chronological age that it was realized that he was retarded mentally. His health record shows that he had chicken pox at five years of age, German measles at six years of age, and measles at seven years. There were no complications noted as a result of these sicknesses, and there has been no retardation in his physical development.



Jack is a friendly, cooperative boy who tried hard to please and to be one of the group. In spite of this and because of no conscious reason on his part, he is not well accepted by the group members. He is often made the brunt of the others' teasing and jokes, a situation which he is powerless to understand. He works dilligently and well but needs constant encouragement and praise. His poor coordination is apparent in written work and all types of activities requiring manipulative skills. Jack started school in a regular class of another city where he met repeated failures. Because of dissatisfaction on the part of his parents, he was enrolled as a tuition pupil in the special class of which he is now a member. At the time of his transfer in September, 1945, an I. Q. of 61 was obtained by the school psychologist. His chronological age was then 12 years and his mental age 7 years and 4 months. The tester commented at this time that he had the greatest difficulty with the memory items, failing the memory digits at 7 years and the memory for sentences at 8 years.

On March 10, 1949, he was given the Stanford-Binet Intelligence Test: Form L. He was enthusiastic about the test but, although self-confident, needed repeated assurance that he was going well. The nature of the test administered requires a basal year to be established at the point at which all test items are passed. The basal year established in this test performance was the VI year level. The range on the test went from the VI year level to the XIV year level at which point all tests were failed. The following report gives a detailed analysis of successes and failures throughout the test.





<u>Level</u>	<u>No. of Tests Passed</u>	<u>Type of Item</u>	<u>Credit Allowed</u>
VI	all tests passed	vocabulary copying a bead chain from memory mutilated pictures number concepts pictorial likenesses and differences maze tracing	12 months <u>Basal Year</u>
VII	5 tests passed	picture absurdities similarities copying a diamond comprehension opposite analogies	10 months
VIII	4 tests passed	vocabulary memory for stories similarities and differences comprehension	8 months
IX	2 tests passed	verbal absurdities making change	4 months
X	1 test passed	vocabulary	2 months
XI	3 tests passed	abstract words problem situation similarities	6 months
XII	3 tests passed	vocabulary response to pictures abstract words	6 months
XIII	1 test passed	plan of search	2 months
XIV	no tests passed		no credit

Total - 6 years and 38 months  
9 years and 2 months

The following table indicates failures:

<u>Level</u>	<u>No. of Tests Failed</u>	<u>Type of Item</u>
VII	1 test failed	repeating 5 digits
VIII	2 tests failed	verbal absurdities memory for sentences



<u>Level</u>	<u>No. of Tests Failed</u>	<u>Type of Item</u>
IX	4 tests failed	paper cutting memory for designs rhymes repeating 4 digits reversed
X	5 tests failed	picture absurdities reading and report finding reasons word naming repeating 6 digits
XI	3 tests failed	memory for designs verbal absurdities memory for sentences
XII	3 tests failed	verbal absurdities repeating 5 digits reversed Minkus completion
XIII	5 tests failed	memory for words paper cutting problems of fact dissected sentences copying a bead chain from memory
XIV	all tests failed	

It is interesting to note that Jack failed the memory items at the same level in this test that he did in the previous one, given three and one-half years ago. His vocabulary, however, is at the XII year level as compared with an VIII year level in 1945. The results of this test reveal Jack to be 6 years and 5 months retarded in mental development, as his chronological age is 15 years and 7 months and his mental age 9 years and 2 months. The obtained I. Q. of 62 places him in the classification of definitely feeble-minded with a final school age prediction of third grade.

On February 7, 1949, Jack was given the Pintner-Durost Elementary Test Scale 1: Form A, Verbal Series. With this general ability test, an I. Q. of 45 was obtained. It will be noted that this reading is less than





the one obtained on the individual Stanford-Binet Test, a result which can be expected, due to the difference in type of tests and testing procedures.

The Intermediate Battery: Form S of the Metropolitan Achievement Tests was given to Jack in the fall of 1948 with the following results:

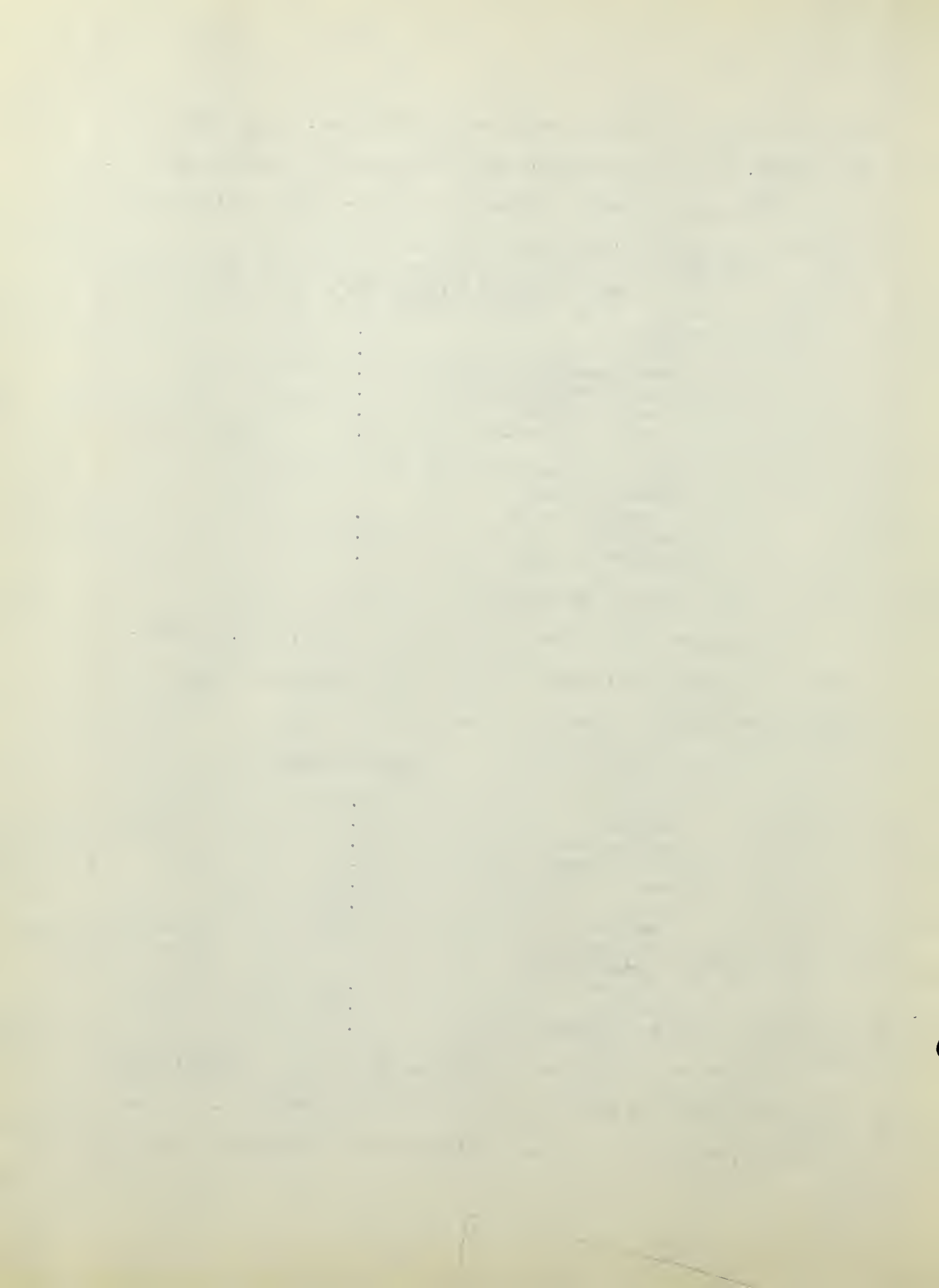
<u>Test</u>	<u>Grade Equivalent</u>
Reading	3.4
Vocabulary	3.1
Average Reading	3.3
Arithmetic Fundamentals	3.9
Arithmetic Problems	4.0
Average Arithmetic	4.0
English	
Language Usage	
Punctuation and	
Capitalization	2.3*
Spelling	3.2
Average Achievement	3.3

\* Extrapolated Score

The same test, Form R, was given to Jack in April, 1949, to determine the educational achievement during the intervening six-month period. The readings at this time were as follows:

<u>Test</u>	<u>Grade Equivalent</u>
Reading	3.6
Vocabulary	3.9
Average Reading	3.8
Arithmetic Fundamentals	4.7
Arithmetic Problems	4.6
Average Arithmetic	4.7
English	
Language Usage	
Punctuation and	
Capitalization	3.0
Spelling	3.6
Average Achievement	3.9

A comparison of these results shows an educational achievement gain of 6 months in average reading, 8 months in average arithmetic, 4 months in spelling, making a total average gain in these subjects of 6 months.



The results of these tests clearly indicate that this boy, who is seriously handicapped mentally, is achieving at a rate beyond that expected of him and that his present grade level is approximately one year in advance of his final school age prediction. As an additional check on Jack's achievement level, he was given the Elementary Battery: Form R of the Metropolitan Achievement Tests, immediately following the Intermediate Battery, the results of which are recorded above. The average achievement reading obtained on this battery for the same subjects was a grade equivalent of 4.2.

This boy is very fortunate in having parents who understand his difficulties and who give him love and security. His careful home training is apparent in the habitual responses which he makes in social situations. He is courteous and well groomed, two factors which will benefit him in all his relationships with others. Mr. Johnston, who is a registered pharmacist, reads with Jack each night, and his mother follows his school progress with interest and understanding. From remarks which Jack makes concerning his sister, it is evident that the relationship existing between the two siblings is a happy one. Jack and his sister are the only children in the family. She is normal in all respects and will enter the seventh grade in September. Her school progress, as well as all her activities, is a source of great pride to Jack.

Summary. Jack is a boy who is mentally retarded to a marked degree but who shows an educational growth and level of achievement greater than that predicted for him. The implications are that, given work within his ability range, a child without emotional conflicts can achieve to his





maximum level, a point which may be in excess of that which is predicted for individuals within his range of mental maturity. An important factor in this study is the tenacity with which Jack "sticks to" the task at hand, providing he feels approval and encouragement on the part of the adult with whom he is working. Without such rapport, his interest immediately wanes and his attitude becomes one of discouragement.

It is difficult to formulate long-range plans for this boy. Because of his impaired vision and his poor coordination, many types of work are at once eliminated. The slowness of his responses, both mental and physical, eliminate others. It would seem that he will always need the protection of his family or society.

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## FRANCES PHILLIPS

Date of Birth: April 10, 1933  
Date of Testing: February 9, 1949  
C. A. 15 years - 10 months  
M. A. 10 years - 4 months  
Obtained I. Q. 69

Frances, an attractive girl with light hair and blue eyes, entered our special class the latter part of October, 1948, a transfer from a neighboring city. She was shy and apprehensive of any new experience for several weeks, but as she gradually became one with the rest of the group, this tendency became less noticeable. She is generally sunny and happy but does, at times, become moody. When she has a "moody" day, a chance remark from another may cause tears, nothing seems to go right, and she is able to accomplish little. Frances is popular with both the boys and girls and is a fine influence in the group as she has a well developed sense of right and wrong. She is reliable and able to accept responsibility, a good worker when she understands the situation.

At the age of twelve years Frances was hospitalized for a period of nine months. She was born with a triple spinal curvature which caused her body to be badly misshapened. The doctors could not promise a successful operation, but they did hold out a hope strong enough for Mrs. Phillips to grasp, hoping for the best. That these hopes were justified is evidenced by Frances as she is today. It is true that one would know that her back is not perfectly straight and that she walks with an unnatural swing, but her condition is not such that she stands out in a group as different from others. She is still going to the hospital for treatments and doing



exercises at home to strengthen her back, but she seldom speaks of any discomfort. Her range of activities is normal for a child of her age except that her physical education program is slightly limited. She has had only one of the contagious childhood sicknesses and that is whooping cough at the age of ten months. Her speech is rapid and has a nasal quality which makes it difficult to follow easily. Her physical maturity is normal for a girl of her age.

Frances is the youngest of three siblings, all of whom are girls. The eldest is now married and established in a home of her own, and the second sister is working in another city. There were no early school records to which to refer in this case, and conferences with Mrs. Phillips revealed little of the early home history except the fact that one of the two elder sisters had "spells" or "fits" for which medication was prescribed. The nature of these "spells" was not discussed, but from references which Frances has made to them on several occasions, it is clear that the witnessing of their occurrence left an unpleasant impression on her.

Because of a divorce, Mrs. Phillips was left with the responsibility of rearing the three children when Frances was a small child. In order to care for them it was necessary for her to go outside the home to work. She married Mr. Phillips two years ago and from all indications a happy family group has been established. Frances refers to Mr. Phillips as "father" and speaks of him with affection. They have bought a new house in a desirable section of the city and are proud that it is theirs. The enjoyment that Mrs. Phillips gets from her new draperies and her flowers is indicative of the things she has gone without during these preceding





years, and her happiness is reflected in the remarks and attitude of Frances.

On February 9, 1949, the Revised Stanford-Binet: Form L was administered to Frances. She entered into the test situation willingly and, while not over-confident, neither was she distrustful of her ability to do the work. Outside stimuli did not distract her attention in the least, but she did become distracted frequently by her own ideas. It was, however, easy to bring her back to the task at hand.

The nature of the test administered requires a basal year to be established at the point at which all test items are passed. The basal year established in this test performance was the VII year level. The range on the test went from the VII year level to the Average Adult level, at which point all test items were failed. The following report gives a detailed analysis of successes and failures throughout the test.

<u>Level</u>	<u>No. of Tests Passed</u>	<u>Type of Item</u>	<u>Credit Allowed</u>
VII	all tests passed	picture absurdities I similarities: two things copying a diamond comprehension III opposite analogies I repeating 5 digits	12 months <u>Basal Year</u>
VIII	5 tests passed	vocabulary memory for stories verbal absurdities I similarities and differences comprehension IV	10 months
IX	3 tests passed	rhymes making change verbal absurdities	6 months
X	5 tests passed	vocabulary picture absurdities II reading and report	



<u>Level</u>	<u>No. of Tests Passed</u>	<u>Type of Item</u>	<u>Credit Allowed</u>
X (cont.)		finding reasons word naming	10 months
XI	2 tests passed	abstract words I problem situation	4 months
XII	2 tests passed	vocabulary abstract words II	4 months
XIII	1 test passed	problems of fact	2 months
XIV	2 tests passed	vocabulary abstract words	4 months
Average Adult	all tests failed		no credit
Total - 7 years and 40 months 10 years and 4 months			

The following table indicates the failures:

<u>Level</u>	<u>No. of Tests Failed</u>	<u>Type of Item</u>
VIII	1 test failed	memory for sentences III
IX	3 tests failed	paper cutting memory for designs repeating 4 digits reversed
X	1 test failed	repeating 6 digits
XI	4 tests failed	verbal absurdities memory for designs memory for sentences similarities: three things
XII	4 tests failed	verbal absurdities II response to pictures II repeating 5 digits reversed Minkus completion
XIII	5 tests failed	plan of search memory for words paper cutting I dissected sentences copying a bead chain from memory II





<u>Level</u>	<u>No. of Tests Failed</u>	<u>Type of Item</u>
XIV	4 tests failed	induction picture absurdities III ingenuity orientation: direction I
Average Adult	all tests failed	

One conspicuous weakness which is revealed by this test is in the area of memory, both visual and auditory. Only one memory item was passed at the VIII year level and none were passed at the higher levels. Frances was chronologically 15 years and 10 months of age at the time of testing; her mental age was 10 years and 4 months, resulting in an obtained I. Q. of 69. According to the classification applied to Intelligence Test Scores, she may be classified as feeble-minded. Her mental development is 5 years and 6 months retarded so that, in general, she approaches the 10 or 11 year old child in abilities and behavior.

The Pintner-Durost Elementary Test Scale I: Form A was given to Frances on February 7, 1949. On this general ability group test the results were as follows: chronological age, 15 years and 10 months; mental age, 9 years and 9 months; I. Q. 62.

Early in November, 1948, the Intermediate Battery: Form S of the Metropolitan Achievement Tests was given to Frances with the results as shown in the table below:

<u>Test</u>	<u>Grade Equivalent</u>
Reading	4.6
Vocabulary	7.7
Average Reading	6.2
Arithmetic Fundamentals	3.7
Arithmetic Problems	4.0
Average Arithmetic	3.9



<u>Test</u>	<u>Grade Equivalent</u>
English	6.2
Spelling	6.9
Average Achievement in Subjects Tested	5.5

Form R of the same test was administered in April, following a period of approximately five months. The results follow:

<u>Test</u>	<u>Grade Equivalent</u>
Reading	4.7
Vocabulary	7.5
Average Reading	6.1
Arithmetic Fundamentals	5.0
Arithmetic Problems	4.3
Average Arithmetic	4.7
English	6.9
Spelling	7.7
Average Achievement in Subjects Tested	6.0

When it is considered that the final school level which is predicted for children with I. Q.'s of 70 is the fourth grade, it is evident that this girl is achieving beyond the average. At the end of the five-month period her average reading score had dropped 1 month, but her average arithmetic reading was up 8 months, her English 7 months, and her spelling 8 months, making a gain in average achievement in the subjects tested of 5 months.

Frances' schedule for the year has included work with the regular classes as well as in the special class. She has had cooking, sewing, art, and library work with the regular classes, doing the assignments with the others. She has gone to the science class as an auditor and has not been required to do the assignments or tests with the others. All other work has been done in the special class. This type of program has enabled Frances to have social contacts with children who are not handicapped as





she is, but on a level where she has been able to achieve satisfactorily. Not the least important factor in such a program is the opportunity which a child gets to evaluate her own strengths and weaknesses.

When Frances entered our class, she planned to leave school on her sixteenth birthday, but now she is eagerly looking forward to high school in September. Her desire to leave school was based on two facts, the first of which was that she was one of the oldest in the special class she had been attending and in Frances' words the rest were "little kids," and the second but contingent reason being that there was no advanced group, chronologically, to which she could be transferred. The requirements for high school placement for "special-class" children are that they be chronologically of high school age, that their emotional and social adjustment is such that they will profit from the experiences gained, and that they have a desire to attend. These requirements are met in Frances' case, and it is with a feeling of satisfaction that she is recommended for high school placement. Judging from her achievement thus far, it is safe to predict that she will gain much from the high school experiences, and it is also safe to assume that she will be better equipped to take her place in the community because of them.

Summary. Frances is a sixteen year old girl who is 5 years and 6 months retarded in mental development. Her academic achievement in the tool subjects is approximately two years in advance of the predictions for children with a level of mental maturity comparable with hers. Her social and emotional maturity, together with her academic achievement, indicate that she will profit from the experiences to be gained in a high





school program. Mr. and Mrs. Phillips are understanding and sympathetic in regard to Frances' problems, and one feels that they give her the love and security which is so essential for every child's happiness. The joy which radiated from Mrs. Phillips' face when she realized that it would be possible for Frances to attend high school was good to see. Her words and tone in which they were uttered, "I can't believe that she will be able to go to high school. I never expected that," were indicative of the problems which parents of handicapped children bear.



## RONALD TRAVERS

Date of Birth: June 10, 1933  
Date of Testing: December 14, 1948  
C. A. 15 years - 6 months  
M. A. 12 years - 4 months  
Obtained I. Q. 84

Ronald, a tall, well-developed, and fine-appearing boy, entered our special class the last week in October, 1948. Due to the fact that his father is a ranking officer in one of the branches of the armed service, Ronald's schooling has had many interruptions. He entered school in one of the southern states in 1941, but was removed to a private school the following year because of unsatisfactory progress. Thus began a series of transfers from one section of the country to another.

Ronald was born in the United States, but at the age of nine months he was taken to the Orient where his father was then stationed. While there, he contracted a severe case of food poisoning, at which time he was two years old. His temperature hovered around 104 degrees for one day. Following the lowering of temperature, he had convulsions which were in turn followed by coma. This sickness lasted for approximately one week. Electroencephalograph tests when Ronald was nine years of age indicated some abnormality and dilantin was prescribed at that time. The last convulsion occurred while he was at camp last summer. He had been having a stomach upset at the time and had not been taking the dilantin. Ronald had chicken pox in 1941, whooping cough in 1943, measles in 1944, and mumps in 1946.

This boy is friendly and cooperative. His home background and environment are reflected in his behavior pattern and in his range of





interests, which are wider than those of the other children in the group. He is happy in this school environment where he is accepted wholeheartedly by his contemporaries and where the standards which he is expected to meet are within his ability. In commenting on Ronald's school adjustment, his mother made the statement that this was the first time he had even been in a group in which he was not "at the bottom." Conferences with the parents, both together and individually, reveal their awareness of Ronald's problems and their concern with his present achievement and future success. It may be an awareness without understanding or a concern so deep that it obscures the fact that this boy's low achievement level is due to circumstances beyond his control. Mr. Travers seems to accept Ronald's handicaps more willingly than Mrs. Travers, but, in spite of suggestions that too much should not be expected of him, a reading tutor was procured. He has worked with the reading tutor three afternoons a week, as well as a stint of reading which must be done every evening before he can go out for play. Because Ronald is extremely slow and has great difficulty in settling down for any specified task, he seldom gets out for play with the other boys at the end of the day. The gulf between the actual achievement and the level at which he has been expected to achieve is illustrated by two examples. He scored a grade equivalent of 4.5 in average arithmetic achievement in April, 1949, but he had been having problems in percentage, finding areas of circles, etc. His reading achievement in April was 3.5, but he brought to school a textbook in United States Government which he had been "studying." His home reading is done from books far beyond his reading ability. His comprehension level is high, doubtless largely due to the fact that he is exposed to this material, but it is at the expense of the good reading habits



that one might wish to develop.

Ronald is slow in all of his reactions, whether it is doing something he enjoys or in responding to directions. His speech is muffled and often indistinct, sometimes fading away before the thought has been completely expressed. He generously shares his belongings, of which he has more than the majority of the children. He is, however, careless with his materials, misplacing some and losing others because his thoughts and attention wander from one topic to the next.

The Revised Stanford-Binet: Form L was administered to Ronald on December 14, 1948. In this, as in other situations, he was distracted by his own ideas but returned readily to the task at hand. This test requires a basal year to be established at which level all test items are passed successfully. The basal year in this case was VIII. The range on the test went from the VIII year level to the Average Adult level, at which point all the test items were failed. The following report gives a detailed analysis of successes and failures throughout the test:

<u>Level</u>	<u>No. of Tests Passed</u>	<u>Type of Item</u>	<u>Credit Allowed</u>
VIII	all tests passed	vocabulary memory for stories verbal absurdities similarities and differences comprehension memory for sentences	12 months <u>Basal Year</u>
IX	5 tests passed	paper cutting verbal absurdities memory for designs rhymes making change	10 months
X	4 tests passed	vocabulary picture absurdities finding reasons repeating 6 digits	8 months





<u>Level</u>	<u>No. of Tests Passed</u>	<u>Type of Item</u>	<u>Credit Allowed</u>
XI	5 tests passed	memory for designs abstract words memory for sentences problem situation similarities	10 months
XII	4 tests passed	vocabulary verbal absurdities abstract words Minkus completion	8 months
XIII	5 tests passed	plan of search memory for words paper cutting problems of fact copying a bead chain from memory II	10 months
XIV	3 tests passed	vocabulary picture absurdities III abstract words II	6 months
Average Adult	no tests passed		no credit
Total - 8 years and 52 months 12 years and 4 months			

The following table lists the failures in the test:

<u>Level</u>	<u>No. of Tests Failed</u>	<u>Type of Item</u>
IX	1 test failed	repeating 4 digits reversed
X	2 tests failed	reading and report word naming
XI	1 test failed	verbal absurdities
XII	2 tests failed	response to pictures II repeating 5 digits reversed
XIII	1 test failed	dissected sentences
XIV	3 tests failed	induction ingenuity orientation: direction
Average Adult	all tests failed	





No outstanding failures are noted in this test but rather a gradual decrease of successes as the difficulty of the items increases. At the time of taking the test Ronald was 15 years and 6 months chronologically, his mental age was 12 years and 4 months, and his obtained intelligence quotient was 84. According to the classification applied to Intelligence Test Scores, he may be classified as dull normal. The final grade level prediction is fifth or sixth grade for children in this classification.

The Pintner-Durost Elementary Test Scale I: Form A, Verbal Series, given on February 7, 1949, showed a chronological age of 15 years and 8 months, a mental age of 9 years and 10 months, and an obtained I. Q. of 63. I. Q. readings for group intelligence tests are apt to run lower than those obtained on individual tests. It will be noted that in this case there is a discrepancy of 21 I. Q. points. One explanation for this fact is Ronald's tendency to daydream and to become distracted from the task at hand by his own thoughts. In the individual test situation it was an easy matter to bring his thoughts back to the question before him, whereas in the group test situation the same procedures could not be used.

The Primary I Battery: Form R of the Metropolitan Achievement Tests was given to Ronald on November 1, 1948, with the following results:

<u>Test</u>	<u>Grade Equivalent</u>
Word Pictures	2.6
Word Recognition	2.3
Word Meaning	3.0
Average Reading	2.8
Numbers	3.0
Average Achievement in	
Subjects Tested	2.7

The Primary I Battery had been given to Ronald because at that time there had been no indication that he could do work on a higher level. As



the strangeness of the new school situation began to lessen, there was a noticeable difference in Ronald's behavior. He became more relaxed and quieter in his movements about the room. The occasional practice of masturbation which had been observed earlier became less frequent. Together with these changes there was a marked improvement in his daily school work. Therefore, it seemed best to use the Intermediate Battery: Form R of the Metropolitan Achievement Tests for the April testing. This was done and the following results were obtained:

<u>Test</u>	<u>Grade Equivalent</u>
Reading	3.9
Vocabulary	3.1
Average Reading	3.5
Arithmetic Fundamentals	4.6
Arithmetic Problems	4.3
Average Arithmetic	4.5
English	3.9
Spelling	4.5
Average Achievement in	
Subjects Tested	4.1

A comparison of the results obtained with these two tests would indicate a gain of 7 months in reading achievement, of 1 year and 5 months in arithmetic, and an average achievement gain of 1 year and 4 months. It is doubtful that such is the case, however. The results may well indicate a substantial gain in performance due to an absence of blocking caused by the tension previously felt, as well as a gain in actual performance. It is impossible to tell where the one begins and the other ends, not only over a period of five months but in his work from day to day. The one outstanding factor in a consideration of Ronald's daily work is this unevenness which is always accompanied by a noticeable degree of inattentiveness and hyperactivity. It is evident that this boy is not achieving to the





level which one expects of a child with an I. Q. of 84. It would seem that the cause for this retardation may be physical and emotional, as well as mental.

The program which seemed best suited for Ronald included art, physical education, and shop work with the regular seventh grade groups. He attended the science class but was not expected to do the required work of the course. All other subjects were taken with the special-class group.

Summary. Ronald is mentally retarded to the extent that he may be considered dull normal. Whereas his achievement over a five-month period was satisfactory, his level of achievement is still lower than is to be expected of a child with an I. Q. of 84. There are indications which lead one to the conclusion that this achievement retardation, together with an unevenness of performance, is due to emotional and physical factors as well as mental immaturity.

Ronald's parents are intelligent, well educated people who take a great deal of active interest in his progress but who are, nevertheless, unable to accept him as he is. Unless they can be guided to see Ronald and his achievements in their true perspective, both parents and child will continue to feel frustration; they, because he can never fit into their pattern as it is at present, and he, because of the consciousness of parental pressure and the disappointment they feel in his slow achievement.

The immediate plans for Ronald include a program similar to that of the present year with more time being given to shop work. Both he and his parents are thinking in terms of trade school after another year in the special class.



## GERALD WHITE

Date of Birth: August 15, 1932  
Date of Testing: October 25, 1948  
C. A. 16 years - 2 months  
M. A. 12 years - 6 months  
Obtained I. Q. 83

Gerald White is a fine appearing negro boy. He is neat and particular about his personal appearance, well mannered, and courteous. Gerald is more mature than some of the children in the group and is inclined to ridicule them because of their mistakes and to laugh or make remarks about them. He is impatient with their questions and quite demanding in the amount of attention which he wishes for himself. In spite of these characteristics, Gerald is a likeable boy and popular with the children of his age and is well accepted by the group of which he is a part.

His work is neatly and carefully done. Although he will work over an extended period on material which presents no unfamiliar aspects, he quickly becomes discouraged when confronted with an unknown situation. This discouragement soon changes to sulkiness unless help is offered immediately. He is not a good loser, but he does enjoy competitive games in which he stands a chance of success.

Gerald gives the appearance of a well-developed boy of fourteen years rather than that of a boy nearly seventeen years of age. He suffers from frequent attacks of asthma, often necessitating absence from school. There are many times when he does not stay at home, that he is listless and tired, often sitting with his head on his desk and with no ambition to work. The only childhood disease which he has had is chicken pox.





Gerald was born in New York City, where his mother now lives. He entered kindergarten in January, 1937, at which time he was four years and five months of age. He completed that school year plus one full year in kindergarten, repeated the first grade, and was placed in a special class in September, 1940. From the year 1937 to 1944, inclusive, eight different addresses are listed on his transfer card as place of residence. He entered a special class in West Newton in 1945 as he was at that time living with a woman whom he calls "aunt" but who is no relation according to Gerald and with whom he still lives. As was stated earlier, Gerald's mother now lives in New York, but the tie between the two is very strong. He writes at least one and sometimes two letters to her each week and visits her on occasional long holidays. He makes this trip alone and often by plane. His mother has been to West Newton at least twice during this past year to visit him.

The house in which Gerald lives with Mrs. Curtis, his "aunt," is a small one, close to the street. There is not space for a lawn, but a few flowers are blooming under the shadow of the house. Inside, the rooms are small and crowded with "things." Mrs. Curtis, a kindly faced and pleasant appearing woman, shows a deep interest in Gerald and his plans for the future. She described him as a "good" boy and seemed to have a real affection for him.

When this boy was tested in 1944, his chronological age was 12 years and 1 month, his mental age 10 years, and his obtained I. Q. was 83. The examiner found him to be a "sullen-faced boy--very tired and sleepy, who didn't look her in the eye and who answered the questions in a few words."

The Revised Stanford-Binet: Form L was administered to Gerald on



The first part of the paper discusses the importance of the study of the history of the United States. It is argued that a knowledge of the past is essential for a full understanding of the present. The author then proceeds to a detailed examination of the early years of the Republic, from the time of the signing of the Declaration of Independence to the end of the War of 1812. This section covers the political, social, and economic developments of the period, and the role of the various states in the formation of the new nation. The author concludes this section by stating that the study of this period is of great importance to the understanding of the United States as a whole.

The second part of the paper discusses the period from the War of 1812 to the Civil War. This section covers the political, social, and economic developments of the period, and the role of the various states in the formation of the new nation. The author concludes this section by stating that the study of this period is of great importance to the understanding of the United States as a whole.

The third part of the paper discusses the period from the Civil War to the present. This section covers the political, social, and economic developments of the period, and the role of the various states in the formation of the new nation. The author concludes this section by stating that the study of this period is of great importance to the understanding of the United States as a whole.

October 25, 1948, at which time his chronological age was 16 years and 2 months, his mental age 12 years and 6 months, and the obtained I. Q. was 83. The characteristics noted by the previous examiner were not evident. He entered the test situation willingly, and there was little interference from distracting stimuli.

This test requires that a basal year be established at which level all test items are passed successfully. The basal year in this case was VIII. The range on the test went from the VIII year level to the Average Adult level, at which point all test items were failed. An analysis of the successes and failures follows:

<u>Level</u>	<u>No. of Tests Passed</u>	<u>Type of Item</u>	<u>Credit Allowed</u>
VIII	all tests passed	vocabulary memory for stories verbal absurdities I similarities and differences comprehension IV memory for sentences III	12 months <u>Basal year</u>
IX	5 tests passed	paper cutting verbal absurdities II rhymes making change repeating 4 digits reversed	10 months
X	5 tests passed	vocabulary picture absurdities II finding reasons word naming repeating 6 digits	10 months
XI	5 tests passed	abstract words I verbal absurdities III memory for sentences problem situation similarities: three things	10 months
XII	4 tests passed	vocabulary verbal absurdities II response to pictures II abstract words II	8 months



<u>Level</u>	<u>No. of Tests Passed</u>	<u>Type of Item</u>	<u>Credit Allowed</u>
XIII	5 tests passed	plan of search memory for words paper cutting I problems of fact copying a bead chain from memory II	10 months
XIV	3 tests passed	vocabulary picture absurdities abstract words II	6 months
Average Adult	no tests passed		no credit
Total - 8 years and 54 months 12 years and 6 months			

The following table indicates the failures:

<u>Level</u>	<u>No. of Tests Failed</u>	<u>Type of Item</u>
IX	1 test failed	memory for designs
X	1 test failed	reading and report
XI	1 test failed	memory for designs
XII	2 tests failed	repeating 5 digits reversed Minkus completion
XIII	1 test failed	dissected sentences
XIV	3 tests failed	induction ingenuity orientation: direction
Average Adult	all tests failed	

It will be noted that the memory items were the first on which Gerald failed, but the test does not indicate any outstanding strengths or weaknesses. According to the classification which is applied to Intelligence Test Scores, a person with an I. Q. of 83 is considered as dull normal with a final grade prediction of fifth or sixth level.

The Pintner-Durost Elementary Test Scale I: Form A, Verbal Series

Month	Year	Days	Notes
Jan	1900	1	...
Jan	1900	2	...
Jan	1900	3	...
Jan	1900	4	...
Jan	1900	5	...
Jan	1900	6	...
Jan	1900	7	...
Jan	1900	8	...
Jan	1900	9	...
Jan	1900	10	...
Jan	1900	11	...
Jan	1900	12	...
Jan	1900	13	...
Jan	1900	14	...
Jan	1900	15	...
Jan	1900	16	...
Jan	1900	17	...
Jan	1900	18	...
Jan	1900	19	...
Jan	1900	20	...
Jan	1900	21	...
Jan	1900	22	...
Jan	1900	23	...
Jan	1900	24	...
Jan	1900	25	...
Jan	1900	26	...
Jan	1900	27	...
Jan	1900	28	...
Jan	1900	29	...
Jan	1900	30	...
Jan	1900	31	...

Month	Year	Days	Notes
Feb	1900	1	...
Feb	1900	2	...
Feb	1900	3	...
Feb	1900	4	...
Feb	1900	5	...
Feb	1900	6	...
Feb	1900	7	...
Feb	1900	8	...
Feb	1900	9	...
Feb	1900	10	...
Feb	1900	11	...
Feb	1900	12	...
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Feb	1900	24	...
Feb	1900	25	...
Feb	1900	26	...
Feb	1900	27	...
Feb	1900	28	...
Feb	1900	29	...
Feb	1900	30	...

Month	Year	Days	Notes
Mar	1900	1	...
Mar	1900	2	...
Mar	1900	3	...
Mar	1900	4	...
Mar	1900	5	...
Mar	1900	6	...
Mar	1900	7	...
Mar	1900	8	...
Mar	1900	9	...
Mar	1900	10	...
Mar	1900	11	...
Mar	1900	12	...
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Mar	1900	23	...
Mar	1900	24	...
Mar	1900	25	...
Mar	1900	26	...
Mar	1900	27	...
Mar	1900	28	...
Mar	1900	29	...
Mar	1900	30	...
Mar	1900	31	...



was given to Gerald on February 7, 1949, with the following results. His chronological age was 16 years and 6 months, his mental age was 10 years and 4 months, and the I. Q. obtained was 60. This I. Q. reading is 23 points lower than the one obtained on the individual Binet, possibly indicating, to some extent, the difficulty which Gerald has in working independently on an assigned task.

The Intermediate Battery: Form S of the Metropolitan Achievement Tests was given to Gerald in the fall of 1948. The results of the test are given below:

<u>Test</u>	<u>Grade Equivalent</u>
Reading	3.4
Vocabulary	3.1
Average Reading	3.3
Arithmetic Fundamentals	4.7
Arithmetic Problems	4.3
Average Arithmetic	4.5
English	4.1
Spelling	3.6
Average Achievement in Subjects Tested	3.9

The same test, Form R, was administered in April, following a period of approximately six months, at which time the following scores were obtained:

<u>Test</u>	<u>Grade Equivalent</u>
Reading	4.5
Vocabulary	4.4
Average Reading	4.5
Arithmetic Fundamentals	5.4
Arithmetic Problems	4.6
Average Arithmetic	5.0
English	4.7
Spelling	4.1
Average Achievement in Subjects Tested	4.6

The first part of the paper is devoted to the study of the properties of the function  $f(x)$  defined by the equation  $f(x) = \sum_{n=0}^{\infty} a_n x^n$ , where  $a_n$  are the coefficients of the power series. It is shown that  $f(x)$  is a continuous function of  $x$  and that it satisfies the functional equation  $f(x) = f(x^2)$ . This implies that  $f(x)$  is a constant function, which is equal to the sum of the series  $\sum_{n=0}^{\infty} a_n$ .

In the second part of the paper, we consider the function  $g(x)$  defined by the equation  $g(x) = \sum_{n=0}^{\infty} b_n x^n$ , where  $b_n$  are the coefficients of the power series. It is shown that  $g(x)$  is a continuous function of  $x$  and that it satisfies the functional equation  $g(x) = g(x^2)$ . This implies that  $g(x)$  is a constant function, which is equal to the sum of the series  $\sum_{n=0}^{\infty} b_n$ .



The third part of the paper is devoted to the study of the properties of the function  $h(x)$  defined by the equation  $h(x) = \sum_{n=0}^{\infty} c_n x^n$ , where  $c_n$  are the coefficients of the power series. It is shown that  $h(x)$  is a continuous function of  $x$  and that it satisfies the functional equation  $h(x) = h(x^2)$ . This implies that  $h(x)$  is a constant function, which is equal to the sum of the series  $\sum_{n=0}^{\infty} c_n$ .



A comparison of the results obtained on these two tests shows a gain of 1.3 in average reading, 5 months in average arithmetic, 6 months in English, 5 months in spelling, and 7 months in average achievement. These gains indicate that he has been achieving more than would be expected of a child at his level of mental maturity. However, it must also be noted that his level of achievement, which is at the approximate 4.6 grade level, is lower than the predictions of fifth or sixth grade would place him.

Gerald's program for the year has included physical education, art, library periods, and shop work with the regular classes. He has taken science as well, but has not been required to do the regular assignments. Whenever the assignments have been within his ability, he has, however, done them voluntarily and has experienced a feeling of satisfaction in the accomplishment.

This boy is most impatient with his slow reading rate and with the type of material which he can read easily. His interests cannot be met by the average book of fourth grade difficulty, but he goes to the encyclopedia, National Geographic, and similar sources for information. He gains much from the pictures but seldom a day passes when Gerald does not come to the desk with a request similar to the following, "Will you please read this for me? You can read faster than I can." This particular request referred to an article on deep sea diving which he had located in the encyclopedia, but it might have been any of a vast number of subjects. It may be that this natural curiosity is largely responsible for the fact that Gerald has a fine background of general information and does not give the impression of being a retarded child.





Summary. Gerald is 3 years and 8 months mentally retarded. He has had many school changes as well as many changes in living situations, to which he has had to become adjusted. At the present time he lives with a woman who, although kind and sympathetic, cannot be expected to fill the same place in his life that his mother, to whom he is deeply attached, could do. However, Gerald and his mother, who lives in New York, keep in close contact through letters and visits with each other.

This boy, who is seventeen years of age in August, plans to enter trade school in the fall. This seems to be a wise decision as he is a neat and careful worker and is capable of doing fine work with his hands. His ambition, as well as that of his mother, has for several years been that he should become a carpenter. This ambition is well within his ability of achievement.

It is to be regretted that Gerald is leaving the junior high school without reaching the academic level which one feels he could have achieved. While it may be impossible to place the cause for this on any particular item, it is safe to assume that emotional and physical factors have entered into the total pattern in such a way that they have exerted a hampering influence on his school progress.



1. The first thing I noticed when I stepped out of the plane was the

fresh air. It felt like I had been in a cocoon for the last few days.

I had been in the hospital for a week, and the doctors had told me

that I was going to be fine. But I knew better. I had felt this way

before, and I knew that I was not going to be fine. I was going to

be in a world where I was not wanted. I was going to be in a world

where I was not needed. I was going to be in a world where I was

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not wanted. I was going to be in a world where I was not needed.

I was going to be in a world where I was not needed. I was going to

be in a world where I was not wanted. I was going to be in a world

where I was not needed. I was going to be in a world where I was

## ESTHER MURDOCK

Date of Birth: September 21, 1935  
Date of Testing: February 9, 1949  
C. A. 13 years - 5 months  
M. A. 7 years - 8 months  
Obtained I. Q. 58

Esther is an attractive, pert-appearing, little negro girl, who is rather small for her thirteen years. She is generally happy and carefree, but she becomes sullen when crossed in any way and very stubborn. When in a stubborn mood, it is useless to try to reason with Esther as it does no good whatsoever. She laughs a great deal in a silly way and at childish things. She is developing an interest in boys and tries to attract their attention in obvious ways. On the street and playground she is loud and boisterous.

Esther is the eldest of fourteen siblings, twelve of whom are living. There were two sets of twins in the family, but one of each set has died. Mr. Murdock is a truck driver and a steady worker. The Murdocks live in the upstairs rent of a two-family house. At the time of the home visit the rooms, although small in size, were clean and in good condition. Eleven of the children were at home and they, too, were clean and "scrubbed" looking. They were friendly but not forward, and their behavior, while perfectly natural, was exceptionally fine. Mrs. Murdock, a woman in her early thirties, showed no indication that the care of this large family was overly burdensome. She was friendly and anxious to discuss Esther's school progress. She expressed the wish that Esther would bring work home to do each evening, the chief reason appearing to be that it would keep her in



the house. Throughout the conversation, one could see many of Esther's characteristics in the mother, and one could easily visualize this girl in a similar family situation twenty years hence.

Esther entered kindergarten in 1940 and had an extra year in pre-primary. All of her school progress has been slow, and in 1947-48 she did work in reading, spelling, and English in the special class. Her teacher for that year wrote, "Esther seems to have no ability to learn correct speech or written work." She came to the junior high school in the fall of 1948 and was referred to the special class there for work in English and arithmetic.

Esther was given a Binet Test in 1945, at which time her chronological age was 10 years, her mental age was 6 years and 8 months, and the obtained I. Q. was 67.

On February 9, 1949, the Revised Stanford-Binet: Form L was administered to Esther. The nature of the test administered requires a basal year to be established at the point at which all test items are passed. The basal year in this test performance was the VI year level. The range on the test went from the VI year level to the XI year level, at which point all tests were failed. The following report gives a detailed analysis of the successes and failures throughout the test.

<u>Level</u>	<u>No. of Tests Passed</u>	<u>Type of Item</u>	<u>Credit Allowed</u>
VI	all tests passed	vocabulary copying a bead chain from memory I mutilated pictures number concepts pictorial likenesses and differences maze tracing	12 months <u>Basal Year</u>



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<u>Level</u>	<u>No. of Tests Passed</u>	<u>Type of Item</u>	<u>Credit Allowed</u>
VII	4 tests passed	picture absurdities comprehension III opposite analogies I repeating 5 digits	8 months
VIII	1 test passed	memory for stories	2 months
IX	3 tests passed	memory for designs making change repeating 4 digits reversed	6 months
X	2 tests passed	picture absurdities II word naming	4 months
XI	no tests passed		no credit

Total - 6 years and 20 months  
7 years and 8 months

The following table indicates the failures on the test:

VII	2 tests failed	similarities copying a diamond
VII	5 tests failed	vocabulary verbal absurdities I similarities and differences comprehension memory for sentences III
IX	3 tests failed	paper cutting verbal absurdities II rhymes
X	4 tests failed	vocabulary reading and report finding reasons I repeating 6 digits
XI	all tests failed	

The tests show no outstanding failures, but rather indicate a low level of mental ability throughout. The results of the test are: chronological age, 13 years and 5 months; mental age, 7 years and 8 months; and an obtained I. Q. of 58. According to the classification applied to

Sample No.	Field No.	Locality	Altitude
1	101	1000 ft. above sea level	1000
2	102	1000 ft. above sea level	1000
3	103	1000 ft. above sea level	1000
4	104	1000 ft. above sea level	1000
5	105	1000 ft. above sea level	1000
6	106	1000 ft. above sea level	1000
7	107	1000 ft. above sea level	1000
8	108	1000 ft. above sea level	1000
9	109	1000 ft. above sea level	1000
10	110	1000 ft. above sea level	1000

Sample No. 111  
Sample No. 112

Sample No. 113

Sample No. 114

Sample No. 115

Sample No. 116

Sample No. 117

Sample No. 118

Sample No. 119

Sample No. 120

Sample No. 121

Sample No. 122

Sample No. 123

Sample No. 124

Sample No. 125

Sample No. 126

Sample No. 127

Sample No. 128

Sample No. 129

Sample No. 130

Intelligence Test Scores, Esther may be classified as definitely feeble-minded. The final grade prediction for this level of intelligence is grade three.

On the Pintner General Ability Tests: Verbal Series, the results were: chronological age, 13 years and 5 months; mental age, 8 years and 3 months; and the obtained I. Q. was 62.

In October, 1948, Esther was given the Intermediate Battery, Form S of the Metropolitan Achievement Tests. The grade equivalents for the different subjects are listed below:

<u>Test</u>	<u>Gr. Equivalent</u>
Reading	3.4
Vocabulary	2.6*
Average Reading	3.0
Arithmetic Fundamentals	4.6
Arithmetic Problems	3.5
Average Arithmetic	4.1
English	2.7*
Spelling	3.6
Average Achievement	3.4

\* Extrapolated Score

Following a period of approximately six months, Form R of the same test was given in order to determine the educational growth during the preceding months. The results were:

<u>Test</u>	<u>Gr. Equivalent</u>
Reading	3.6
Vocabulary	3.3
Average Reading	3.5
Arithmetic Fundamentals	5.0
Arithmetic Problems	3.9
Average Arithmetic	4.5
English	3.9
Spelling	3.6
Average Achievement in Subjects Tested	3.9





A comparison of the results of the two tests clearly indicates that educational growth took place and at a rate in excess of the expectation for a child with an intelligence level as low as the obtained I. Q. places Esther. The average achievement level, as shown by grade equivalents, is also higher than is predicted for that level of ability. It would appear from these tests that Esther is working and achieving to her maximum level, and it is doubtful whether her educational standing will rise far above the present rating.

Summary. It will be realized that Esther has made very satisfactory social and emotional adjustments when one considers that she is 5 years and 7 months mentally retarded. Her educational growth has also been satisfactory as she now scores as high in English and arithmetic as the predictions for her level of intelligence, as expressed by I. Q.'s, indicate her capable of doing. A school plan, similar to that which has been followed during the current year, seems to be best for Esther for the coming year, with as much emphasis placed on the practical arts as is possible.

This girl who, although an adolescent, is only 7 years of age mentally needs understanding guidance. She does not have the necessary judgment to make decisions which may be contrary to her natural inclinations and wishes, and she also lacks the ability to look ahead and evaluate the consequences of her acts. There is a question whether this problem can be met satisfactorily in the home, regardless of the fact that the problem is realized by the parents.





## RALPH FROST

Date of Birth: October 7, 1933  
Date of Testing: October 26, 1948  
C. A. 15 years - 1 month  
M. A. 10 years - 6 months  
Obtained I. Q. 73

Ralph is one of three siblings, all boys, and the only one who does not fit into the intellectual pattern of the family. An older brother, a college graduate, is now self-supporting and in a home of his own, while the younger boy is in the highest division of his class. Mrs. Frost is a college graduate, and Mr. Frost graduated from high school. Both parents are well informed, intelligent people. Mr. Frost has his own business and is able to provide for his family in a manner which is above that of the average. This is a family situation in which the standards are high and the children are receiving guidance, both by precept and example, in desirable habits of living.

Ralph did not begin to talk until he was three years of age. At the time of school enrollment in 1938, his speech was retarded and his motor coordination was below average for a child of his age. His kindergarten teacher noted that he was also below in emotional control and social adjustment. At the present time Ralph is a rather frail but fine looking boy of fifteen and one-half years. His manner is courteous and friendly. Ralph was referred to the special class for part-time work in the fall of 1947. The same program has been followed during the current year. When he was first referred for special help, one of the outstanding characteristics was the immaturity of his interests and his actions. In spite of trying



not to do so, a minor frustration usually resulted in tears and one of his most frequent observations was, "I'm tired." A medical check-up during the summer had revealed a thyroid deficiency, the metabolism reading being minus 28, for which he was, and still is, receiving medication. A low level of resistance which resulted in frequent colds interfered with the regularity of his school attendance and limited the amount of academic progress which could be expected.

There has been a decided change in Ralph's physical appearance during the past year. Not only has he matured physically, but he shows growth in mental maturity and emotional control, as well. Always interested in the Boy Scouts of which he is an active member, he would never go on any of the camping trips, even for one night. This year he has taken part in several trips, the last one being for the entire week-end. Approximately a year ago Ralph wanted to have a paper route, to which his parents, after consideration and with some hesitation, consented. He still has his paper route, and the money which he earns is saved to buy some article which he would not have otherwise. His last purchase was a large tent for overnight camping trips.

The Revised Stanford-Binet: Form L was administered to Ralph on October 26, 1948. The nature of the test administered requires a basal year to be established at the level at which all test items are passed. The basal year established in this test performance was the VI year level. The range on the test went from the VI year level to the XIV year level, at which point all tests were failed. The following report gives a detailed analysis of successes and failures throughout the test:





<u>Level</u>	<u>No. of Tests Passed</u>	<u>Type of Item</u>	<u>Credit Allowed</u>
VI	all tests passed	vocabulary copying a bead chain from memory I mutilated pictures number concepts pictorial likenesses and differences maze tracing	12 months <u>Basal Year</u>
VII	5 tests passed	picture absurdities copying a diamond comprehension opposite analogies repeating 5 digits	10 months
VIII	5 tests passed	vocabulary memory for stories verbal absurdities I comprehension memory for sentences III	10 months
IX	5 tests passed	paper cutting verbal absurdities memory for designs making change repeating 4 digits reversed	10 months
X	3 tests passed	vocabulary picture absurdities II repeating 6 digits	6 months
XI	3 tests passed	memory for designs abstract words I problem situation	6 months
XII	2 tests passed	response to pictures II abstract words II	4 months
XIII	4 tests passed	plan of search paper cutting I problems of fact copying a bead chain from memory II	8 months
XIV	no tests passed		no credit

Total - 6 years and 54 months  
10 years and 6 months



The following table lists the failures throughout the test:

<u>Level</u>	<u>No. of Tests Failed</u>	<u>Type of Item</u>
VII	1 test failed	similarities: two things
VIII	1 test failed	similarities and differences
IX	1 test failed	rhymes
X	3 tests failed	reading and report finding reasons word naming
XI	3 tests failed	verbal absurdities memory for sentences IV similarities: three things
XII	4 tests failed	vocabulary verbal absurdities repeating 5 digits reversed Minkus completion
XIII	2 tests failed	memory for words dissected sentences
XIV	all tests failed	

It will be noted that at no point did Ralph achieve at his chronological age level of 15 years and 1 month. The failure of the test items at the VII and VIII year level of similarities, and similarities and differences, indicates that his ability to make discriminations is greatly limited. According to this test, Ralph's mental age is 10 years and 6 months, and the obtained I. Q. is 73. The results show him to be a retarded child who, according to the classification applied to Intelligence Test Scores, may be considered as of borderline deficiency. The final school level predicted for children with this I. Q. is the fourth grade.

The Pintner-Durost Elementary Test Scale I: Form A, Verbal Series was administered to Ralph on February 7, 1949, with the following results: chronological age, 15 years and 4 months; mental age, 9 years and 0 months;





obtained I. Q. 59.

The Intermediate Battery: Form S of the Metropolitan Achievement Tests was given to Ralph in October, 1948. The results follow:

<u>Test</u>	<u>Grade Equivalent</u>
Reading	3.8
Vocabulary	4.0
Average Reading	3.9
Arithmetic Fundamentals	4.8
Arithmetic Problems	3.5
Average Arithmetic	4.2
English	3.7
Spelling	3.0
Average Achievement in Subjects Tested	4.0

A comparison of the scores on these two tests shows a loss in average reading of 1 month, a gain of 1 year in average arithmetic, a gain of 6 months in English, and neither gain nor loss in spelling, resulting in a total average gain in the subjects tested of 4 months.

Summary. Ralph, whose chronological age was 15 years and 1 month at the time of testing, shows a mental retardation of 4 years and 7 months, which places him in the classification of borderline deficiency. According to the available records, his physical, emotional, and social development has also been retarded since early childhood. The educational growth of 4 months over a period of 6 months is consistent with the expected rate of achievement for a child whose I. Q. is 73. It is to be desired that intensive work in reading during the coming year will raise his achievement level in this subject to a point more consistent with his intelligence level.

Ralph's school placement seems to be desirable for him. He realizes his reading difficulty and is working to overcome it, but in this as in





other areas his initiative and ability to "stick to it" are limited. His parents are understanding and sympathetic in regard to Ralph's problems and do not urge him beyond his level of accomplishment although they encourage him to achieve to his maximum. Both Ralph and his parents are planning on trade school after one more year in the junior high school with a program similar to that which has been followed during the past two years.



## RAY MOORE

Date of Birth: November 11, 1934  
Date of Testing: October 8, 1948  
C. A. 13 years - 11 months  
M. A. 10 years - 10 months  
Obtained I. Q. 80

Ray Moore is one of eight siblings, two of whom, a boy and a girl, are younger than he. Both parents are of French ancestry but were born in the United States. Although Mr. Moore is a carpenter and a good worker, the house in which the family lives is in a run-down condition. Mrs. Moore is not a good housekeeper, and the failure to keep the surroundings attractive seems to rest on her rather than on Mr. Moore.

Ray was referred to the special class in the spring of 1948. He had been truanting from school and gave as his reason that the children laughed at him because he could not read. An informal reading test at that time showed that he stumbled over some second grade material and had considerable difficulty with third-grade work.

His school record showed that he had entered kindergarten in 1939, had repeated the fourth grade, and that his progress had been retarded throughout the primary and elementary grades. It would be impossible to give a better picture of certain of Ray's characteristics at the present time than was done by his kindergarten teacher when she checked his Kindergarten Personal Record Sheet ten years ago. At that time he was below average in emotional stability, his social adjustment was also below average in that he did not conform to the group, he was not well accepted by the other children, and he failed to show a desirable degree of





responsibility for his actions. His work habits were poor as he was unable to work independently and seldom finished the things he started. His attention span was below average for his age level. It would seem that this same behavior pattern which was evident in the kindergarten has continued and become intensified. Doubtless due to the repeated failures which he has experienced, Ray's attitude is a negative one. It is very seldom that he does an assignment willingly or without remonstrating at the amount of work required or the difficulty of the task. Each time a new topic is introduced it is necessary to overcome a wall of defeatism which is so firmly established that the only way to break it down is to say that the work "has to be done." Then, with very bad grace, Ray will attempt the work. In spite of the fact that he has made much progress, which he recognizes, the same procedure needs to be followed day after day in every subject. It is, therefore, a constant battle to bring Ray to that level of achievement which he is capable of reaching. Contrary to the usual expectation, even repeated successes do not seem to make him feel any confidence that he can master new work. This sense of defeatism is not confined to one subject, but is evident in all work which he has in the special class. During the current school year he has had his English subjects, social studies, and arithmetic in the helping room. Although he is educationally retarded in all subjects, except possibly arithmetic, it is reading that has given Ray the greatest concern. He has now reached the point where he can read with enjoyment books which are written on a fourth-grade vocabulary level and a high interest level. There is a series of these books about outstanding Americans in the school library, and he has now read nearly all of them. The fact that he is now seldom seen in the



corridors at school without a book and that he is apparently engrossed in reading it, as he walks along, shows perhaps more clearly than words can do, how deeply his reading handicap has hurt him and the extent to which he will now go to demonstrate to all that he can read.

This boy's home situation is not one which is conducive to the development of emotional stability. There is apparently rivalry among the siblings, who feel that Ray is the mother's favorite. If there is supervision of his social activities, it is very slight, as he stays out with "the gang" until 11 or 11:30 o'clock on school nights and comes to school tired out the following morning. His associates have, for the past few years, been boys several years older than he. Now that these boys have gone away to school or to work, Ray finds it very dull around home as he is not interested in the activities most of the boys of his age enjoy.

One very favorable factor in a consideration of this boy's problems is his interest in sports. During the spring the physical education department did a great deal of practicing for an exhibition which was to be open to the public. Ray was chosen for two activities because of his skill in the performance of them. During this period of intensive practice his attitude toward life in general was improved; his relationships with the other children were more satisfactory and he attached his academic work with less complaint. After the exhibition and the termination of the intensive practice, he did slip back, but it was a glorious experience for him and one, the effects of which he may never entirely lose.

He seems to be harboring resentment and antagonism which occasionally break forth. One day, in a violent burst of temper, Ray insisted that everyone picked on him. Then, although there was no apparent connection,





he reviewed in detail an incident which had occurred several years previously and a punishment which he had received, as he felt, unjustly. After this emotional outburst, he did his work quietly and better than usual. Although this was not the first temper outburst, it was the first time Ray apologized for his behavior. He has, however, apologized several times since then, always voluntarily.

This boy has many fine qualities and is a likeable lad when things are going his way, but he is unable to face difficulties or to accept criticism. One feels that, unless he can develop greater emotional maturity, he will have many trying experiences which will involve not only Ray, but his friends, as well.

The Revised Stanford-Binet Scale: Form L was administered to Ray on October 8, 1948. This test requires that a basal year is established at which point all the test items are passed successfully. The basal year in this test was at the VIII year level. The range on the test went from the VIII year level to the Average Adult level, at which point all the test items were failed. The following report gives a detailed analysis of the successes and failures throughout the test.

<u>Level</u>	<u>No. of Tests Passed</u>	<u>Type of Item</u>	<u>Credit Allowed</u>
VIII	all tests passed	vocabulary memory for stories verbal absurdities I similarities and differences comprehension IV memory for sentences	12 months <u>Basal Year</u>
IX	5 tests passed	paper cutting I verbal absurdities II rhymes making change repeating 4 digits reversed	10 months





<u>Level</u>	<u>No. of Tests Passed</u>	<u>Type of Item</u>	<u>Credit Allowed</u>
X	5 tests passed	vocabulary picture absurdities finding reasons I word naming repeating 6 digits	10 months
XI	2 tests passed	abstract words I problem situation	4 months
XI	2 tests passed	verbal absurdities II abstract words II	4 months
XIII	1 test passed	copying a bead chain from memory II	2 months
XIV	2 tests passed	induction ingenuity	4 months
Average Adult	no tests passed		
			Total - 8 years and 34 months 10 years and 10 months

The test failues are listed below:

IX	1 test failed	memory for designs
X	1 test failed	reading and report
XII	4 tests failed	memory for designs verbal absurdities memory for sentences similarities
XII	4 tests failed	vocabulary response to pictures II repeating 5 digits reversed Minkus completion
XIII	5 tests failed	plan of search memory for words paper cutting problems of fact dissected sentences
XIV	4 tests failed	vocabulary picture absurdities III orientation abstract words II



Average Adult      all tests failed  
Level

It will be noted that Ray passed one test item at his chronological age level and two test items one year in advance of his chronological age. The total test covers a fairly wide range and in general shows a better reasoning power as indicated by the correct responses to items such as finding reasons, detecting absurdities, induction, and ingenuity, than memory, as indicated by his failure in memory for designs as low as the IX year level.

The results of this test give Ray an obtained I. Q. of 80, with his chronological age being 13 years and 11 months and his mental age being 10 years and 10 months. According to the classification which is applied to Intelligence Test Scores, this places Ray in the dull group. The final grade prediction for this I. Q. rating is at the fifth or sixth grade level.

On the Pintner-Durost Elementary Test Scale I: Form A, which he took February 7, 1949, Ray's obtained I. Q. was 69, with a chronological age of 14 years and 3 months and a mental age of 9 years and 9 months.

He was given the Intermediate Battery: Form S of the Metropolitan Achievement Tests in the fall, 1948. The results were as follows:

<u>Test</u>	<u>Gr. Equivalent</u>
Reading	3.6
Vocabulary	2.5*
Average Reading	3.1
Arithmetic Fundamentals	4.6
Arithmetic Problems	4.9
Average Arithmetic	4.8
English	2.4*
Spelling	2.0*
Average Achievement in	
Subjects Tested	3.3

\* Extrapolated Score





After a period of six months he was given Form R of the same test in order to measure his progress during the preceding months. The results were:

<u>Test</u>	<u>Gr. Equivalent</u>
Reading	4.5
Vocabulary	3.5
Average Reading	4.0
Arithmetic Fundamentals	6.2
Arithmetic Problems	6.0
Average Arithmetic	6.1
English	3.5
Spelling	3.1
Average Achievement in Subjects Tested	4.4

A comparison of the results obtained on the two tests shows that Ray made greater progress than one would expect from a child with normal intellectual ability. His average reading gain was 9 months, his average arithmetic gain was 1 year and 3 months, English 1 year and 1 month, spelling 1 year and 1 month, with the average achievement gain being 1 year and 1 month for the six-month period. It is doubtful whether Ray's actual gain was as great as these results would indicate, due to the fact that he is very erratic in his work. Work which has been successfully done one day may present too many difficulties for him on the following day. When he feels that he is not succeeding, he immediately gives up and refuses to try, thus often failing to show a true picture of his abilities. A notation was made at the time of the first testing to the effect that Ray's lack of confidence was very evident during the test situation. One may assume, therefore, that the first test failed to give a picture of his actual grade level. However, it is also safe to assume that a substantial gain was made during the testing period. This fact has been apparent in his daily work, as well.



Summary. Ray's educational retardation is doubtless due to emotional factors as well as mental retardation. The present grade placement of 4.4, as was obtained on the last achievement test, is below the expectation for a child with his level of intelligence. No plan presents itself as being "best" for Ray for the coming year as there are so many factors to be considered. However, it would seem wise for him to have special help in the English subjects, at least, with as much participation in sports as is possible.

This boy needs guidance in his social and emotional adjustments. Whether his pattern of behavior is so firmly established that it will not be changed is a question to be seriously considered. Also, how effective will the guidance which he may receive in school be, as compared with the influences of his environment outside the school situation? However, it is the responsibility of all those who come in contact with Ray to guide him as well as they can, and as long as they can, trusting that he may develop those qualities which will make him more acceptable, and therefore happier, in his social group.





## JOHN FARNSWORTH

Date of Birth: December 22, 1934  
Date of Testing: April 13, 1949  
C. A. 14 years - 4 months  
M. A. 11 years - 6 months  
Obtained I. Q. 83

John is a quiet, rather withdrawn boy who was referred to the special class for help in reading and social studies. He entered the junior high school in the fall of 1948, having had no special help previous to that date except that which could be given in the regular class group.

John is the youngest of five siblings, all of whom are boys and three of whom are living. Three brothers were in the fighting areas during the war, one receiving wounds, but all returning to their home at the war's termination. One of the young men, however, lost his life in a drowning accident a year ago. Both parents were born in Ireland. Mr. Farnsworth is employed by the city in the capacity of a highway foreman, and Mrs. Farnsworth does housework outside her own home when she is physically able to do so. During the past year she has undergone an operation but is now in better health. This appears to be a closely knit family unit, and the influence of each member upon John is apparent. This was especially noticeable during Mrs. Farnsworth's illness. A notation in the cumulative record indicates that during the war years John's chief interest and topic of conversation centered about his brothers who were in the service.

The Revised Stanford-Binet Intelligence Test: Form L was given to John on April 13, 1949. His attitude toward the test was normal, and there was little interference from distracting stimuli. Rapport was established





quickly and easily. The nature of the test administered requires a basal year to be established at which point all test items are successfully completed. In this case the basal year was at the IX year level. The range on the test extended from the IX year level to the Average Adult level, at which point all test items were failed. The following report gives a detailed analysis of the successes and failures throughout the test:

<u>Level</u>	<u>No. of Tests Passed</u>	<u>Type of Item</u>	<u>Credit Allowed</u>
IX	all tests passed	paper cutting I verbal absurdities II memory for designs rhymes making change repeating 4 digits reversed	12 months <u>Basal Year</u>
X	3 tests passed	vocabulary picture absurdities II repeating 6 digits	6 months
XI	5 tests passed	memory for designs verbal absurdities III abstract words memory for sentences problem situation	10 months
XII	2 tests passed	verbal absurdities II abstract words	4 months
XIII	4 tests passed	plan of search paper cutting I problems of fact copying a bead chain from memory II	8 months
XIV	1 test passed	induction	2 months
Average Adult	no tests passed		no credit
Total - 9 years and 30 months 11 years and 6 months			

The following table gives the failures in the test:



<u>Level</u>	<u>No. of Tests Failed</u>	<u>Type of Item</u>
X	3 tests failed	reading and report finding reasons word naming
XI	1 test failed	similarities: three things
XII	4 tests failed	vocabulary response to pictures II repeating 5 digits reversed Minkus completion
XIII	2 tests failed	memory for words dissected sentences
XIV	5 tests failed	vocabulary picture absurdities ingenuity orientation: direction I abstract words II
Average Adult	all tests failed	

No outstanding strengths or weaknesses are apparent in this test except that he failed the reading item at the X year level, thus indicating a difficulty already recognized. According to the classification which is applied to Intelligence Test Scores John may be classified as dull with a final school prediction of sixth or seventh grade level.

The Pintner-Durost Elementary Test Scale I: Form A, Verbal Series was administered to John on February 7, 1949, with the following results: chronological age, 14 years and 2 months; mental age, 9 years and 9 months; obtained I. Q. 69. In the majority of cases tested in the helping class group, the I. Q. as obtained on the group test has been lower than that obtained on the individual test which was analyzed above.

John was referred to the helping class for English and social studies. Due to the fact that the social studies program carried out in the special





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class room does not follow that in the course of study for regular classes, no standardized test was given in that subject. The reading test in the Intermediate Battery: Form S of the Metropolitan Achievement Tests was given in October, 1948, to determine his standing at that time. The results follow:

<u>Test</u>	<u>Gr. Equivalent</u>
Reading	3.4
Vocabulary	2.8*
Average Reading	3.1
English	
I. Language Usage	
II. Punct. and Cap.	
Total English	2.8*
Spelling	2.4*
Average	2.9

\* Extrapolated Score. The raw score was below the grade listing, so the table was extended downward in a manner which was consistent with the scores listed.

In April, 1949, after a period of approximately six months, the same test, Form R, was given to John in order to measure the educational achievement in the English area. The results were as follows:

<u>Test</u>	<u>Gr. Equivalent</u>
Reading	4.6
Vocabulary	4.3
Average Reading	4.5
English	
I. Language Usage	
II. Punct. and Cap.	
Total English	4.2
Spelling	3.5
Average	4.2

A comparison of the results of these tests show a gain of 1 year and 5 months in average reading, 1 year and 4 months in English, 1 year and 1 month in spelling, resulting in a total gain in average achievement of



1 year and 3 months. This achievement is greater than one would expect of a child with normal intellectual ability for the same length of time. It may be assumed, therefore, that John was not only achieving to, but surpassing the expectations for a child with his level of mental maturity. Two important factors in this educational growth are: first, his splendid attitude of cooperation and a desire to learn; and second, materials fitted to his needs and level of achievement.

Summary. John is a friendly, but reserved boy who does not push himself forward in any way. He is the type of child who could easily be overlooked in a crowded classroom because of his undemanding attitude.

The obtained I. Q. of 83 indicates that his level of academic achievement will be at approximately the seventh grade. His rate of achievement during the six months which were tested shows that he has by no means reached his maximum level at the present time. Although John is educationally retarded for his mental age, it is safe to assume that he will be able to bridge this gap under favorable conditions. It is his wish to enter trade school in the fall of 1950. Therefore, it is to be hoped that his progress for the coming year may be as satisfactory as the past has been, in order that English may be a valuable tool for his use, rather than a handicap.





## WILBURT HUBLEY

Date of Birth: June 7, 1934  
Date of Testing: April 13, 1949  
C. A. 14 years - 10 months  
M. A. 11 years - 10 months  
Obtained I. Q. 83

Wilburt is the second oldest in a family of four siblings, three of whom are girls. He is a sturdily-built, colored boy, friendly in his social relationships and industrious about his work.

The Hubleys live in a single family dwelling in one of the less desirable sections of the city. Mrs. Hubley is an attractive, intelligent-appearing woman who seems to understand Wilburt's slow school progress. She reached the last year in high school, and Mr. Hubley, who is now a machinist, graduated from high school.

At the time of the home visit Mrs. Hubley was working full time due to the fact that her husband had been ill and unable to work. She regretted the necessity of leaving the children but felt that such a course was necessary. In referring to Wilburt's school progress, she commented on the fact that his sister, who is one year younger than he, is in the same class. Mary, being quicker mentally, laughed at his mistakes and brought home tales of school happenings which were embarrassing to Wilburt. Realizing that this situation was not a healthy one, Mrs. Hubley requested that the two children be placed in different home rooms for their sixth year's work. This request was granted, much to Wilburt's relief. Now that they are in junior high school they are separated still more, in that they not only have different home rooms, but also different grade divisions.



1. The first part of the paper is devoted to a general discussion of the problem of the existence of a solution of the system of equations (1) for arbitrary values of the parameters  $\alpha$  and  $\beta$ . It is shown that the system has a solution if and only if the conditions (2) are satisfied.

2. In the second part of the paper we consider the problem of the construction of a solution of the system (1) for arbitrary values of the parameters  $\alpha$  and  $\beta$ . It is shown that the system has a solution if and only if the conditions (2) are satisfied. The solution is constructed in the form of a series in powers of the parameters  $\alpha$  and  $\beta$ . The coefficients of the series are determined by the conditions (2).

3. In the third part of the paper we consider the problem of the construction of a solution of the system (1) for arbitrary values of the parameters  $\alpha$  and  $\beta$ . It is shown that the system has a solution if and only if the conditions (2) are satisfied. The solution is constructed in the form of a series in powers of the parameters  $\alpha$  and  $\beta$ . The coefficients of the series are determined by the conditions (2).

4. In the fourth part of the paper we consider the problem of the construction of a solution of the system (1) for arbitrary values of the parameters  $\alpha$  and  $\beta$ . It is shown that the system has a solution if and only if the conditions (2) are satisfied. The solution is constructed in the form of a series in powers of the parameters  $\alpha$  and  $\beta$ . The coefficients of the series are determined by the conditions (2).

5. In the fifth part of the paper we consider the problem of the construction of a solution of the system (1) for arbitrary values of the parameters  $\alpha$  and  $\beta$ . It is shown that the system has a solution if and only if the conditions (2) are satisfied. The solution is constructed in the form of a series in powers of the parameters  $\alpha$  and  $\beta$ . The coefficients of the series are determined by the conditions (2).

6. In the sixth part of the paper we consider the problem of the construction of a solution of the system (1) for arbitrary values of the parameters  $\alpha$  and  $\beta$ . It is shown that the system has a solution if and only if the conditions (2) are satisfied. The solution is constructed in the form of a series in powers of the parameters  $\alpha$  and  $\beta$ . The coefficients of the series are determined by the conditions (2).

7. In the seventh part of the paper we consider the problem of the construction of a solution of the system (1) for arbitrary values of the parameters  $\alpha$  and  $\beta$ . It is shown that the system has a solution if and only if the conditions (2) are satisfied. The solution is constructed in the form of a series in powers of the parameters  $\alpha$  and  $\beta$ . The coefficients of the series are determined by the conditions (2).

8. In the eighth part of the paper we consider the problem of the construction of a solution of the system (1) for arbitrary values of the parameters  $\alpha$  and  $\beta$ . It is shown that the system has a solution if and only if the conditions (2) are satisfied. The solution is constructed in the form of a series in powers of the parameters  $\alpha$  and  $\beta$ . The coefficients of the series are determined by the conditions (2).

9. In the ninth part of the paper we consider the problem of the construction of a solution of the system (1) for arbitrary values of the parameters  $\alpha$  and  $\beta$ . It is shown that the system has a solution if and only if the conditions (2) are satisfied. The solution is constructed in the form of a series in powers of the parameters  $\alpha$  and  $\beta$ . The coefficients of the series are determined by the conditions (2).

10. In the tenth part of the paper we consider the problem of the construction of a solution of the system (1) for arbitrary values of the parameters  $\alpha$  and  $\beta$ . It is shown that the system has a solution if and only if the conditions (2) are satisfied. The solution is constructed in the form of a series in powers of the parameters  $\alpha$  and  $\beta$ . The coefficients of the series are determined by the conditions (2).

Wilburt entered school in 1939, repeated grade one, and then made satisfactory progress until the fifth year when his school record indicates that he started to "slow down in school work." He manifested an interest in drawing and in sports during his elementary school years, two interests which he still maintains.

On April 13, 1949, Wilburt was given the Revised Stanford-Binet Intelligence Test: Form L. He was cooperative and interested throughout the testing period and there was little interference from distracting stimuli.

The nature of the test administered requires a basal year to be established at the point at which all test items are passed. The basal year established in this test performance was the IX year level. The range in the test went from the IX year level to the Average Adult level, at which point all tests were failed. The following report gives a detailed analysis of successes and failures throughout the test.

<u>Level</u>	<u>No. of Tests Passed</u>	<u>Type of Item</u>	<u>Credit Allowed</u>
IX	all tests passed	paper cutting I verbal absurdities II memory for designs rhymes making change repeating 4 digits reversed	12 months <u>Basal Year</u>
X	4 tests passed	vocabulary finding reasons I word naming repeating 6 digits	8 months
XI	5 tests passed	memory for designs abstract words memory for sentences IV problem situation similarities: three things	10 months



<u>Level</u>	<u>No. of Tests Passed</u>	<u>Type of Item</u>	<u>Credit Allowed</u>
XII	2 tests passed	response to pictures II abstract words II	4 months
XIII	4 tests passed	paper cutting I dissected sentences problems of fact copying a bead chain from memory II	8 months
XIV	2 tests passed	picture absurdities III orientation: direction I	4 months
Average Adult	no tests passed		no credit
Total - 9 years and 34 months 11 years and 10 months			

The following table indicates failures on the test:

<u>Level</u>	<u>No. of Tests Failed</u>	<u>Type of Item</u>
X	2 tests failed	picture absurdities II reading and report
XI	1 test failed	verbal absurdities III
XII	4 tests failed	vocabulary verbal absurdities II repeating 5 digits reversed Minkus completion
XIII	2 tests failed	plan of search memory for words
XIV	4 tests failed	vocabulary induction ingenuity abstract words II
Average Adult	all tests failed	

There are no outstanding strengths or weaknesses indicated by the test results. It will be noted that no test items were passed beyond the level of Wilburt's chronological age which was 14 years and 10 months at the time of testing. His mental age was found to be 11 years and 10 months





and the obtained I. Q. was 83. According to the classification used for Intelligence Test Scores, this boy may be considered as a dull child. The final grade prediction for this level of mental maturity is grade six or seven.

A lower reading was obtained on the Pintner Intermediate Test: Form A, which was taken February 10, 1949. At that time Wilburt was 14 years and 8 months chronologically, 10 years mentally, with an I. Q. of 70 being obtained. This lower reading is comparable with the majority of those obtained with the group test of general ability, as compared with the individual test, in the present study.

Because of the fact that Wilburt was referred to the helping class for the subjects of English and arithmetic, the Intermediate Battery: Form R of the Metropolitan Achievement Tests was administered to him in October, 1948, to determine his level of achievement in these two areas. The following results were obtained:

<u>Test</u>	<u>Gr. Equivalent</u>
Reading	3.9
Vocabulary	3.5
Average Reading	3.7
English	
I. Language Usage	
II. Punct. and Cap.	
Total English	4.6
Arithmetic Fundamentals	4.3
Arithmetic Problems	4.2
Average Arithmetic	4.2
Spelling	6.0
Average Achievement in	
Subjects Tested	4.4

After a period of approximately six months, during which time Wilburt came to the helping class two periods a day, a second test, Form R, was given and the following results were obtained:



<u>Test</u>	<u>Gr. Equivalent</u>
Reading	4.6
Vocabulary	5.4
Average Reading	5.0
English	
I. Language Usage	
II. Punct. and Cap.	
Total English	6.1
Arithmetic Fundamentals	5.8
Arithmetic Problems	5.1
Average Arithmetic	5.5
Spelling	5.6
Average Achievement in	
Subjects Tested	5.5

A comparison of the test results shows a gain of 1 year and 3 months in average reading, 1 year and 5 months in English, 1 year and 2 months in average arithmetic, a loss of 4 months in spelling, resulting in a gain of 1 year and 1 month in average achievement in the subjects tested. These gains indicate that Wilburt was achieving at a rate beyond that which is expected of a child with an I. Q. of 83. Two important factors in this gain are: first, his attitude and desire to learn; and second, subject matter presented at his level of achievement.

Summary. Wilburt is a friendly, cooperative boy, who, regardless of his mental retardation, is making satisfactory social and emotional adjustments. During the six months in which his achievement in the areas of English and mathematics was tested, he showed an average gain which was greater than that expected of a child with normal intelligence. Although he is still educationally retarded according to his mental age, one can expect that he will be able to bridge this gap before he leaves the public schools, providing he continues to receive the extra help which he needs.

His plan to enter trade school at the completion of his junior high





school course seems to be a wise one. He is an excellent worker and capable of doing fine hand work. These characteristics further developed, plus his intellectual ability which, although low, will enable him to use a certain amount of judgement in his decisions, should make him an asset to the community.





## LUCILLE COLLINS

Date of Birth: November 25, 1934  
Date of Testing: October 25, 1948  
C. A. 13 years - 11 months  
M. A. 11 years - 10 months  
Obtained I. Q. 87

Lucille, an attractive girl with light hair and blue eyes, is the eldest in a family of seven siblings, the youngest of whom is slightly over a year old. A sister, eleven years of age, is now in the seventh grade, and the remaining siblings, all brothers, range in age from nine years to one year and six months. Mrs. Collins is of English descent, and Mr. Collins, although American born, is of Italian ancestry. Both parents have shown a real interest in Lucille and a desire to make plans best suited for her.

Lucille was one of the special-class members whom I met for the first time in September, 1948. She was outstanding in the group because of her attractive appearance, her sunny disposition, and her mature behavior. She was popular with all of the children in the classroom as well as with any adults with whom she came in contact. While never one to push herself forward and demand attention, she was friendly and cooperative.

From chance comments, it was plain to see that Lucille was capable beyond the average girl of her age in the performance of household tasks. She often prepared the family dinner and during her mother's absence had the greater part of the responsibility for preparing all the family's food. At no time was there any indication on Lucille's part that any of these duties were irksome. Instead, she "loved" to cook, to sew, and to care



for babies.

She was happy in her school experience, except for one thing which was not fully realized until the latter part of the year. She was very sensitive to remarks sometimes made by children in the regular classes concerning those in the special class. She did not seem to belong in a special class group. Her social and emotional adjustment were adequate for a girl of her age and her practical judgement was excellent. Her one handicap was that she learned slowly, but with an obtained I. Q. of 90 on a Binet in 1945 it was decided that a different program would be tried for Lucille the following year.

During the school year 1947-1948, Lucille's home room had been in the special-class room. She had physical education, art, music, cooking, and sewing with the regular classes, but all academic work was done in the special class. In September, 1948, Lucille was scheduled in one of the regular home rooms with a teacher who was sympathetic and understanding of the situation. The home room teacher was also Lucille's English teacher, a matter which was considered in making the placement. During the year she was to take all subjects with the regular classes except mathematics, for which she was to come to the special class. The reason for this being that she was so far below the standard in this subject that she would have been entirely baffled and could have gained nothing from the regular class work. This plan was explained to Lucille, and she was made to feel that whenever she needed some "extra" help she should come to the special class for it. A conference with each teacher whom Lucille would have was one of the first items which needed attention in September, after which there was not much one could do except wait and see how the plan would unfold.





There was no difficulty in the social adjustment relative to the regular class placement. The deep satisfaction which Lucille felt in being one of the larger group was evident in many ways. The one thing which caused the greatest concern was the responsibility which she felt for doing not only the regular assignments, but the optional ones as well. During those first weeks Lucille would come to the special-class room on an average of two or three nights a week for help, not expecting that it be done for her, but needing help in locating materials and amplifying the assignments. A less conscientious child would have gotten along more easily but that was not her way.

About the middle of the school year when things seemed to be going smoothly, a call was received from Lucille's grandfather. It appeared that Lucille had run away from her home and had walked some distance in a winter's storm to her grandparents. He said that she was terribly disturbed because her mother had scolded her for getting poor marks in school and that everyone at home, even the little brother, called her "dummy." He also said that too much work was expected of Lucille at home and that nothing was demanded of the eleven year old sister. Other remarks indicated that, at the present time at least, there was considerable antagonism on his part toward the mother.

Without referring to the grandfather's remarks, an appointment was made with Mrs. Collins for a home visit. Her exclamation, "Oh, I should be so glad to see you. I am having a lot of trouble with Lucille," was a perfect opening for a frank discussion of the problem. It appeared that she became very much exasperated when Lucille brought home work home, night after night, which she was unable to complete. She would become irritable



while trying to help Lucille do the work and then an argument would follow. Added to this was the fact that Lucille now wanted to have "dates" as the other girls did and, in short, was showing some of the rebellious traits which are common to adolescents. In speaking of these things, Mrs. Collins said, "I just don't understand Lucille. She never answered me back before." An attempt was made to explain to these parents that since the time when Lucille had been placed in a special class, when she was at third grade level, she had never had any real competition as the greater part of her work had been on an individual basis. Now for the first time she was competing with those who had always been in the regular classes. The fact that all of Lucille's teachers were pleased with her attitude toward her work and the progress she was making was also emphasized. The non-academic aptitudes and abilities which Lucille possesses were discussed and an attempt was made to help this father and mother realize their child's assets rather than to dwell on her liabilities. The problems of adolescence were also discussed in order that they might realize that Lucille was beginning to feel the need of more independence and was perhaps trying to achieve it in her own way. A comparison of Lucille with her sister, together with a chance comment of Mrs. Collins that in her grandparents' eyes Lucille could do no wrong, indicated that there might be an element of rivalry here, as well as the more apparent problems.

A closer contact was kept with Lucille than previously in order to anticipate any difficulty which might arise, without making her conscious of any observation, as it was most desirable that she develop independence. It seems, however, that home events resumed their usual course and conferences with the parents confirm this.





A subsequent conference with the parents revealed that they wished to have Lucille attend trade school, a plan which she also desired. A consideration of all pertinent facts indicates that for Lucille this will be a wise choice. She has already been accepted for admittance in the Boston Trade School for Girls and in September will begin her work there.

Many times during the year the wisdom of placing Lucille in a situation in which she would face so many new problems has been questioned. Even though she was not "special class" material, was the junior high school level too late to return her to regular class activities? Lucille, herself, answered this question quite unknowingly in a paragraph which she wrote as an English assignment. Lucille wrote, "The year went fast in the eighth grade because I could do what my girl friends were doing in school and to and from school. I could talk about the same things they would talk about instead of just listening....."

On October 25, 1948, Lucille was given the Revised Stanford-Binet: Form L, at which time her chronological age was 13 years and 11 months, her mental age 11 years and 10 months, and the obtained I. Q. was 87. This test requires that a basal year be established at which level all test items are passed successfully. The basal year established in this test was X. The range on the test went from the X year level to the Average Adult level, at which point all test items were failed. The following report gives a detailed analysis of successes and failures throughout the test:

<u>Level</u>	<u>No. of Tests Passed</u>	<u>Type of Item</u>	<u>Credit Allowed</u>
X	all tests passed	vocabulary picture absurdities reading and report finding reasons	





<u>Level</u>	<u>No. of Tests Passed</u>	<u>Type of Item</u>	<u>Credit Allowed</u>
X (cont.)		word naming repeating 6 digits	12 months <u>Basal Year</u>
XI	4 tests passed	verbal absurdities abstract words I memory for sentences similarities: three things	8 months
XII	3 tests passed	repeating 5 digits reversed abstract words II Minkus completion	6 months
XIII	1 test passed	plan of search	2 months
XIV	3 tests passed	picture absurdities III orientation: direction I abstract words II	6 months
Average Adult	no tests passed		no credit
Total - 10 years and 22 months 11 years and 10 months			

The following table indicates the failures:

<u>Level</u>	<u>No. of Tests Failed</u>	<u>Type of Item</u>
XI	2 tests failed	memory for designs problem situation
XII	3 tests failed	vocabulary verbal absurdities response to pictures II
XIII	5 tests failed	memory for words paper cutting I problems of fact dissected sentences copying a bead chain from memory II
XIV	3 tests failed	vocabulary induction ingenuity
Average Adult	all tests failed	



Although this test does not reveal any outstanding strengths or weaknesses, it is of interest to note that the first item failed was one involving visual memory. It would seem that the increase of failures is due to the increasing difficulty of the test items.

On the Pintner-Durost Elementary Test Scale I: Form A, which Lucille took on May 12, 1949, the results were: chronological age, 14 years and 6 months; mental age, 9 years and 6 months, and obtained I. Q., 66.

According to the classification applied to Intelligence Test Scores, Lucille, with a Binet I. Q. of 87, may be classified as dull normal. The final grade prediction for this reading is the seventh grade.

The Intermediate Arithmetic Test: Form S of the Metropolitan Achievement Tests was taken by Lucille in October, 1948, at which time she scored as follows:

<u>Test</u>	<u>Grade Equivalent</u>
Arithmetic Fundamentals	4.7
Arithmetic Problems	4.9

The same test, Form R, taken in April gave these results:

<u>Test</u>	<u>Grade Equivalent</u>
Arithmetic Fundamentals	4.7
Arithmetic Problems	5.3

A comparison of the test results shows no gain in arithmetic fundamentals and a gain of 4 months in arithmetic problems during the six-month period, which is less than could be expected.

Summary. Although Lucille is mentally retarded, she is socially and emotionally mature and well adjusted. Her chief interests lie in the home making arts, a field in which she is capable of doing good work. Therefore,





the plan of attending trade school in the fall seems a wise course to follow. This girl will, in all probability, prove to be an asset to the community, for she has those qualities of good citizenship in such measure that they may well compensate for the mental retardation of which one is so conscious in a school situation.

One explanation of this low achievement growth may be in the many social and emotional adjustments which have been made by Lucille during the year. Her maturation in these two areas has been such that classroom teachers have commented on it. A second reason may be due to the concentrated effort which was put into the "regular" class subjects, in all of which Lucille has made satisfactory progress, as reported by the subject teachers.



## GORDON DOWNES

Date of Birth: March 3, 1936  
Date of Testing: October 18, 1948  
C. A. 12 years - 8 months  
M. A. 13 years  
Obtained I. Q. 103

Gordon is a boy whose problems lie, not within himself primarily, but in the environment in which he has lived. The influence of these circumstances has been such, however, that the problems which they have created are woven into the pattern of his life in such a way that they are now deeply impressed upon him.

This boy is the second eldest of four siblings, three of whom are boys. At the time of his school entrance he was apparently as well equipped as the majority of the children in his group for a normal childhood. While still in the primary grades, his appearance began to change. He came to school in a disheveled state of dress and was generally unkempt. He made little or no progress, but just sat, in his class. The cause of this change lay in the home situation. Mr. Downes had become interested in another woman and carried on his attentions to her in public view of all the neighbors. Mrs. Downes' reaction was one of self-pity. Instead of thinking of the children's welfare, she dwelt upon her own misfortune, grew careless and slovenly about her personal appearance, and allowed the children to, more or less, look out for themselves. Finally, the father deserted the family entirely.

As Gordon became older, he continued to make slight school progress. He became interested in, and a part of, a gang of elementary school child-





ren who, because of destroying property of considerable value, were taken to court. As a result of this escapade, Gordon was placed in a foster home, and it was from this home that he entered the junior high school.

Gordon was referred to the special class early in October for extra help in reading and, of perhaps greater importance, to help him achieve a degree of emotional stability, the major aim of his home-room teacher and grade counselor, as well.

He had at this time a hard, protective shell and a "chip on his shoulder" attitude, but underneath was a little boy who was very insecure and emotionally disturbed. He had a nickname which was often used by the children, and when he was asked which he preferred to be called, by the nickname or by his real name, he very vehemently replied that he hated his own name because that was his father's name, too. Toward his mother, Gordon showed much affection, but for his father there was an intense dislike which manifested itself repeatedly.

This boy's concepts of right and wrong are not clearly defined, and he has a quick, violent temper, two areas in which he needs much guidance. That he feels insecure but wants to be liked is shown by two examples. After receiving praise for work well done, he said with evident pride, "Just like my mother says, I'm not dumb." On another occasion when he learned that he had been chosen to go to a camp for the summer, he said, "Do you know why Father Smith chose me? He did it just because he likes me."

Because of undesirable conditions in the foster home where Gordon was living, it was necessary to move him to a different home. This home is in another section of the city, so he has been transferred to a nearby school.





He is now living with his mother and brothers and sister, a situation which should add to his much needed sense of security.

On October 18, 1948, the Revised Stanford-Binet Scale: Form L was administered to Gordon. He enjoyed the test situation and entered into the activities enthusiastically. He showed a normal degree of confidence, and there was little disturbance from distracting stimuli. The nature of the test administered requires that a basal year be established at which point all test items are successfully passed. The basal year established in this test performance was the XI year level. The range on the test went from the XI year level to the Average Adult level, at which point all tests were failed. The following report gives a detailed analysis of successes and failures throughout the test.

<u>Level</u>	<u>No. of Tests Passed</u>	<u>Type of Item</u>	<u>Credit Allowed</u>
XI	all tests passed	memory for designs verbal absurdities III abstract words I memory for sentences problem situation similarities: three things	12 months <u>Basal Year</u>
XII	5 tests passed	vocabulary verbal absurdities II response to pictures II repeating 5 digits reversed abstract words II	10 months
XIII	4 tests passed	plan of search memory for words paper cutting I problems of fact	8 months
XIV	3 tests passed	induction picture absurdities III ingenuity	6 months
Average Adult	no tests passed		no credit
Total - 11 years and 24 months 13 years and 0 months			



The following table indicates the failures on the test:

<u>Level</u>	<u>No. of Tests Failed</u>	<u>Type of Item</u>
XII	1 test failed	Minkus completion
XIII	2 tests failed	dissected sentences copying a bead chain from memory II
XIV	3 tests failed	vocabulary orientation abstract words II
Average	all tests failed	
Adult		

There are no outstanding strengths or weaknesses indicated from the results of this test, but rather a decrease in the successes and the difficulty of the items increase. Gordon was 12 years and 8 months, chronologically, at the time this test was taken; his mental age was 13 years and 0 months; and the obtained I. Q. was 103. According to the classification used for Intelligence Test Scores, this places him in the normal or average group of individuals whose mental ability, other factors being favorable, should enable them to do satisfactory academic work at the high-school level.

The reading test of the Intermediate Battery: Form S of the Metropolitan Achievement Tests showed Gordon's average reading to be at the third-grade and third-month level in October, 1948. The individual scores were:

<u>Test</u>	<u>Gr. Equivalent</u>
Reading	3.6
Vocabulary	2.9
Average Reading	3.3

The following scores, obtained with the same test, Form R, indicate his achievement level in February, 1949, after a period of four months:





<u>Test</u>	<u>Gr. Equivalent</u>
Reading	4.1
Vocabulary	3.8
Average Reading	4.0

The gain, which a comparison of these scores indicates, is consistent with the level of mental ability which Gordon possesses. Under ordinary conditions it could be expected that he would be achieving at seventh-grade level in all subjects and that his educational gain would be at a normal, or average, rate. Gordon is, however, retarded educationally but not mentally. It is to be hoped that, as he becomes more secure in his emotional and social relationships, he will be able to bridge the gap between his mental age and his educational age which exists at the present time. Considering that he gained seven months in average reading achievement over a period of four months is indicative that he will be able to make the greater gain, other factors being favorable.

Summary. Gordon is a boy who, although of normal intelligence, is educationally retarded. The reason for his retardation appears to lie in the feelings of insecurity and emotional tensions which he has felt. The gain which he was able to make in the short period of four months is indicative of the work which he should be able to accomplish under favorable circumstances. One who has worked with this boy cannot but feel that the coming months will be critical ones for him and that the responsibility resting on the adults, whose task it is to counsel and guide him, is one not to be borne lightly.



## FELIX TRENT

Date of Birth: December 2, 1933

Date of Testing: March 28, 1949

C. A. 15 years - 4 months

M. A. 13 years - 10 months

Obtained I. Q. 95

Felix Trent and his brother, Peter, were transferred from a school outside the state to the Warren Junior High School early in November, 1948. Both boys had attended the Newton schools except for the preceding year when the family had lived in New Hampshire.

The family group consists of four siblings and the parents. Felix is the eldest and Peter the second in age, while the two younger siblings are girls, to whom both boys appear to be deeply attached. Both Mr. and Mrs. Trent are high school graduates, and the father is at present employed as a plumber. The boys are of mixed racial ancestry as the mother is of Italian descent and the father of Irish. The report which came with these boys at the time of transfer indicated that parental cooperation was often less than one would desire. A conference with the mother strengthened this initial impression. She appeared to be extremely self-centered and had a faculty of dramatizing her remarks with gestures and facial grimaces. She had a "psychological" interpretation for all problems discussed, and she did not confine her remarks to those regarding the children and their progress, but elaborated on attitudes in the home that had no bearing on the matters at hand and about which most people would have been reticent. The result of the conference was a feeling of surprise that these two boys are as well adjusted, emotionally and socially, as they appear to be.





Felix is a well-built boy with a fine appearance. He is friendly and well poised, except in new situations, where he is apt to manifest signs of nervousness. Felix has a jerky movement of the eyeball which has been diagnosed as congenital nystagmus and for which he received instruction in the sight-saving group. He was referred to the special class, primarily due to the fact that he had spent the time from November, 1943, to June, 1947, in a sight-saving class and there was a question at the time of his transfer in November, 1948, as to the best grade placement for him.

In order to determine his level of achievement, the Intermediate Battery--Complete: Form S, of the Metropolitan Achievement Tests was given to this boy early in November. The results obtained from this battery of tests were as follows:

<u>Test</u>	<u>Grade Equivalent</u>
Reading	7.0
Vocabulary	9.3
Average Reading	8.2
Arithmetic Fundamentals	5.7
Arithmetic Problems	7.0
Average Arithmetic	6.4
English	7.4
Literature	11.3
Social Studies: History	11.3
Average Social Studies	11.3
Science	9.4
Spelling	5.8
Average Achievement	8.5

On the basis of these results, it was decided that Felix should be enrolled as a straight eighth-grade pupil. Due to the fact that his arithmetic achievement level was only 6.4, it seemed probable that he would need help in that subject. He was, therefore, scheduled for the special class for his study period once a week, as well as for the daily activity period. The activity period is a half hour in length and comes during the





lunch hour when one group is in the cafeteria and the remainder of the school is in the home rooms.

The arithmetic test: Form R was given to Felix in April, 1949, five months later, at which time he scored as follows:

<u>Test</u>	<u>Grade Equivalent</u>
Arithmetic Fundamentals	6.8
Arithmetic Problems	7.1
Average Arithmetic	7.0

A comparison of these results shows a gain of 1 year and 1 month in arithmetic fundamentals, indicating that this is the phase which has received the greater attention. His ability to use the fundamental processes now approximates his reasoning power in problem solving. It would seem that, for Felix, this has been a wise educational program for he will be able to continue with his regular class, receiving only a minimum of extra help, as he feels the need of it.

On March 28, 1949, the Revised Stanford-Binet: Form L was administered to Felix. His attitude toward the testing was cooperative, and there was little interference from distracting stimuli. The nature of the test requires that a basal year be established, at which point all test items are passed. The basal year in this test was the XI year level. The range on the test went from the XI year level to the Superior Adult II level, at which point all tests were failed. A detailed analysis of the successes and failures throughout the test are given below:

<u>Level</u>	<u>No. of Tests Passed</u>	<u>Type of Item</u>	<u>Credit Allowed</u>
XI	all tests passed	memory for designs verbal absurdities III abstract words memory for sentences problem situation similarities: three things	12 months <u>Basal Year</u>



<u>Level</u>	<u>No. of Tests Passed</u>	<u>Type of Item</u>	<u>Credit Allowed</u>
XII	4 tests passed	vocabulary verbal absurdities II abstract words II Minkus completion	8 months
XIII	4 tests passed	plan of search paper cutting I problems of fact dissected sentences	8 months
XIV	4 tests passed	vocabulary induction picture absurdities III abstract words II	8 months
Average Adult	1 test passed	differences between abstract words	2 months
Superior Adult	2 tests passed	repeating 6 digits reversed essential similarities	8 months
Superior Adult II	10 tests passed		no credit
Total - 11 years and 34 months 13 years and 10 months			

The following table lists the failures in the test:

<u>Level</u>	<u>No. of Tests Failed</u>	<u>Type of Item</u>
XII	2 tests failed	response to pictures II repeating 5 digits reversed
XIII	2 tests failed	memory for words copying a bead chain from memory II
XIV	2 tests failed	ingenuity orientation: direction I
Average Adult	7 tests failed	vocabulary codes arithmetical reasoning proverbs ingenuity memory for sentences V reconciliation of opposites





<u>Level</u>	<u>No. of Tests Failed</u>	<u>Type of Item</u>
Superior Adult I	4 tests failed	vocabulary enclosed box problem Minkus completion sentence building

Superior Adult II	all tests failed	
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There are no outstanding strengths or weaknesses evident in this test. It is interesting to note that, although the test item at the XII year level "repeating 5 digits reversed" was failed, a similar item at the Superior Adult level "repeating 6 digits reversed" was passed.

The results of this test show Felix to be 15 years and 4 months, chronologically, 13 years and 10 months, mentally, with the obtained I. Q. being 95. According to the classification applied to Intelligence Test Scores, he may be considered as of normal or average intelligence and can be expected to succeed in academic work, all other factors being favorable, through high school level.

The Pintner Intermediate Test: Form A, Verbal Series, was taken by Felix February 14, 1949, with the following results. His chronological age was 15 years and 2 months, his mental age 12 years and 8 months, and the obtained I. Q. was 84.

Summary. Felix is of normal intelligence but is educationally retarded. This retardation is noted especially in the areas of arithmetic. Although showing a gain of 1 year and 1 month in arithmetic fundamentals over a period of five months, his average arithmetic score in April was only at the seventh grade level. Due to the progress he has made and to that which can be expected for the remaining three months of the school



year, it seems safe to assume that he will be able to continue with his regular class without extra help for the school year 1949-1950. His progress should be closely observed, however, in order that, if any difficulties present themselves, they can be eliminated before confusion results.



## PETER TRENT

Date of Birth: September 13, 1935  
Date of Testing: April 4, 1949  
C. A. 13 years - 7 months  
M. A. 14 years - 2 months  
Obtained I. Q. 109

Peter is a very friendly and alert boy, whose educational retardation appears due to factors other than mental inability to master the subject. Peter is below average in size, and to compensate for this felt inferiority he frequently assumes an aggressive attitude when with older and larger boys.

He refers to the various members of his family more frequently than most boys of his age, and the affection which he feels for his two younger sisters is very evident. There is, however, considerable rivalry between Peter and his brother, Felix, who is not only 1 year and 9 months older, but who is also larger in size.

This boy's chief interest is dogs. He loves all animals but especially dogs. He has done a great deal of reading about them and has a fund of information concerning the various breeds, their origin, the care they need, and their chief points of superiority. His plans for the future are centered about dogs and he hopes to become a veterinarian. One cannot but feel that if this interest is maintained, his choice is a good one.

There was no question concerning Peter's school placement when he was transferred to our school in November. He was to be in the seventh grade in all classes except arithmetic, for which he was to come to the special class.





The Arithmetic Test from the Intermediate Battery: Form S of the Metropolitan Achievement Tests showed him to be greatly retarded in this subject. The scores were:

<u>Test</u>	<u>Grade Equivalent</u>
Arithmetic Fundamentals	4.8
Arithmetic Problems	4.9
Average Arithmetic	4.9

An analysis of the test failures showed mistakes in primary addition, subtraction, multiplication, and division facts, as well as confusion in the elementary processes. It seemed, therefore, wise to begin with a rapid review of the fundamentals and to progress as rapidly as possible without adding to the confusion already present.

The same test, Form R, was given to Peter in April, 1949, after a period of five months. The scores for this testing were:

<u>Test</u>	<u>Grade Equivalent</u>
Arithmetic Fundamentals	6.5
Arithmetic Problems	5.1
Average Arithmetic	5.8

A comparison of the two tests shows a marked gain of nine months in achievement.

The Revised Stanford-Binet Intelligence Test: Form L was administered to Peter on April 4, 1949. He entered actively into the test situation and there was little interference from distracting stimuli. The nature of the test administered requires that a basal year be established at which point all test items are passed. The basal year established in this test performance was the XI year level. The range on the test went from the XI year level to the Superior Adult II level, at which point all test items were failed. The following report gives a detailed analysis of



successes and failures throughout the test.

<u>Level</u>	<u>No. of Tests Passed</u>	<u>Type of Item</u>	<u>Credit Allowed</u>
XI	all tests passed	memory for designs verbal absurdities abstract words I memory for sentences IV problem situation similarities: three things	12 months <u>Basal Year</u>
XII	4 tests passed	vocabulary verbal absurdities II abstract words II Minkus completion	8 months
XIII	5 tests passed	plan of search memory for words paper cutting I problems of fact dissected sentences	10 months
XIV	5 tests passed	vocabulary induction picture absurdities III orientation: direction abstract words II	10 months
Average Adult	3 tests passed	codes differences between abstract words memory for sentences V	6 months
Superior Adult I	2 tests passed	sentence building essential similarities	4 months
Superior Adult II	no tests passed		no credit
Total - 11 years and 38 months 13 years and 2 months			

The following table shows the failures:

<u>Level</u>	<u>No. of Tests Failed</u>	<u>Type of Item</u>
XII	2 tests failed	response to pictures II repeating 5 digits reversed
XIII	1 test failed	copying a bead chain from memory II





<u>Level</u>	<u>No. of Tests Failed</u>	<u>Type of Item</u>
XIV	1 test failed	ingenuity
Average Adult	5 tests failed	vocabulary proverbs arithmetical reasoning ingenuity reconciliation of opposites
Superior Adult I	4 tests failed	vocabulary enclosed box problem Minkus completion repeating 6 digits reversed
Superior Adult II	all tests failed	

The fact that Peter's vocabulary is on the XIV year level and that he passed the item "differences between abstract words" at the Average Adult level and "sentence building" at the Superior Adult level indicates not only an understanding of, but a facility in the use of words.

The results of the test reveal this boy to be five months in advance of his chronological age. His chronological age is 13 years and 7 months, his mental age is 14 years and 2 months, and the obtained I. Q. is 109. According to the classification used with Intelligence Test Scores, he may be classified as of normal or average intelligence. It is, therefore, to be expected that he will be able to succeed in academic work, at least through high school.

The Pintner Intermediate Test: Form A, Verbal Series, was given to Peter February 10, 1949, with the following results. His chronological age was 13 years and 5 months, his mental age was 13 years and 1 month, and the obtained I. Q. was 97.



Summary. Peter, a boy of normal intelligence, is succeeding in all of his academic subjects except arithmetic. Although his average achievement gain for the five-month period, November to March, inclusive, was 9 months, his grade equivalent level was only 5.8. In view of the fact that his intelligence is normal and that he was able to advance as he did with special help, the following recommendation will be made for the coming year. It will be recommended that Peter shall take mathematics with his regular class group, coming to the special class once a week, during his study period, for extra help. Arrangements will be made for him to come at other times for help if there is need of it.



## CHAPTER V

## SUMMARY AND CONCLUSIONS

Thus far, in the case studies the individual child has been the focal point of interest. In the summary and conclusions an attempt will be made to give a picture of the group of children as a whole and to show the extent to which their educational needs were met, as measured by standardized tests.

The results obtained from the administration of the Revised Stanford-Binet Scale: Form L Intelligence Tests showed a range of intellectual ability, as measured by I. Q.'s, of 64 points. The lowest I. Q. was 45 and the highest was 109, with the mean I. Q. being 74 points.

The results obtained from the administration of the Pintner General Ability Tests, Verbal Series, showed a range of intellectual ability, as measured by I. Q.'s, of 64 points. The lowest I. Q. on these tests was 33 and the highest was 97 with a mean I. Q. of 60 points.

A comparison of Table I and Table II reveals that both the individual test (Stanford-Binet) and the group tests (Pintner General Ability) showed the same range of intellectual ability, as measured by I. Q.'s. A point of interest is the fact that the same pupils maintained their positions at either extreme. There are variations, however, within the range of scores.

As this study was concerned with eighteen children, five girls and thirteen boys, a comparison of the mean chronological ages, mental ages, and I. Q.'s of the two groups, as obtained on the Revised Stanford-Binet





TABLE I  
 RANGE OF OBTAINED INTELLIGENCE QUOTIENTS  
 REVISED STANFORD-BINET SCALE: FORM L

Name	Date of Birth	Date of Testing	Chronological Age	Mental Age	Obtained I. Q.
Roy	3-27-33	10-21-48	15-7	6-8	45
Norma	2-24-33	3-2-49	16-0	7-0	47
Thelma	10-3-34	10-18-48	14-1	7-0	51
Bruce	5-19-33	10-19-48	15-5	8-2	56
Esther	9-21-35	2-9-49	13-5	7-8	58
Jack	8-25-33	3-10-49	15-7	9-2	62
Frances	4-10-33	2-9-49	15-10	10-4	69
Fred	10-3-34	10-21-48	14-1	9-10	72
Ralph	10-7-33	10-26-48	15-1	10-6	73
Ray	11-11-34	10-8-48	13-11	10-10	80
John	12-22-34	4-13-49	14-4	11-6	83
Gerald	8-15-32	10-25-48	16-2	12-6	83
Wilburt	6-7-34	4-13-49	14-10	11-10	83
Ronald	6-10-33	12-14-48	15-6	12-4	84
Lucille	11-26-34	10-25-48	13-11	11-10	87
Felix	12-2-33	3-28-49	15-4	13-10	95
Gordon	3-3-36	10-18-48	12-8	13-0	103
Peter	9-13-35	4-4-49	13-7	14-2	109

THE UNIVERSITY OF CHICAGO

LIBRARY OF THE UNIVERSITY OF CHICAGO

Author	Title	Year	Volume	Page	Notes
1. Aristotle	Nicomachean Ethics	342	10	1098a	10
2. Aristotle	Metaphysics	340	12	1026a	11
3. Aristotle	Politics	340	13	1288a	12
4. Aristotle	Metaphysics	340	14	1026a	13
5. Aristotle	Metaphysics	340	15	1026a	14
6. Aristotle	Metaphysics	340	16	1026a	15
7. Aristotle	Metaphysics	340	17	1026a	16
8. Aristotle	Metaphysics	340	18	1026a	17
9. Aristotle	Metaphysics	340	19	1026a	18
10. Aristotle	Metaphysics	340	20	1026a	19
11. Aristotle	Metaphysics	340	21	1026a	20
12. Aristotle	Metaphysics	340	22	1026a	21
13. Aristotle	Metaphysics	340	23	1026a	22
14. Aristotle	Metaphysics	340	24	1026a	23
15. Aristotle	Metaphysics	340	25	1026a	24
16. Aristotle	Metaphysics	340	26	1026a	25
17. Aristotle	Metaphysics	340	27	1026a	26
18. Aristotle	Metaphysics	340	28	1026a	27
19. Aristotle	Metaphysics	340	29	1026a	28
20. Aristotle	Metaphysics	340	30	1026a	29
21. Aristotle	Metaphysics	340	31	1026a	30
22. Aristotle	Metaphysics	340	32	1026a	31
23. Aristotle	Metaphysics	340	33	1026a	32
24. Aristotle	Metaphysics	340	34	1026a	33
25. Aristotle	Metaphysics	340	35	1026a	34
26. Aristotle	Metaphysics	340	36	1026a	35
27. Aristotle	Metaphysics	340	37	1026a	36
28. Aristotle	Metaphysics	340	38	1026a	37
29. Aristotle	Metaphysics	340	39	1026a	38
30. Aristotle	Metaphysics	340	40	1026a	39
31. Aristotle	Metaphysics	340	41	1026a	40
32. Aristotle	Metaphysics	340	42	1026a	41
33. Aristotle	Metaphysics	340	43	1026a	42
34. Aristotle	Metaphysics	340	44	1026a	43
35. Aristotle	Metaphysics	340	45	1026a	44
36. Aristotle	Metaphysics	340	46	1026a	45
37. Aristotle	Metaphysics	340	47	1026a	46
38. Aristotle	Metaphysics	340	48	1026a	47
39. Aristotle	Metaphysics	340	49	1026a	48
40. Aristotle	Metaphysics	340	50	1026a	49
41. Aristotle	Metaphysics	340	51	1026a	50
42. Aristotle	Metaphysics	340	52	1026a	51
43. Aristotle	Metaphysics	340	53	1026a	52
44. Aristotle	Metaphysics	340	54	1026a	53
45. Aristotle	Metaphysics	340	55	1026a	54
46. Aristotle	Metaphysics	340	56	1026a	55
47. Aristotle	Metaphysics	340	57	1026a	56
48. Aristotle	Metaphysics	340	58	1026a	57
49. Aristotle	Metaphysics	340	59	1026a	58
50. Aristotle	Metaphysics	340	60	1026a	59
51. Aristotle	Metaphysics	340	61	1026a	60
52. Aristotle	Metaphysics	340	62	1026a	61
53. Aristotle	Metaphysics	340	63	1026a	62
54. Aristotle	Metaphysics	340	64	1026a	63
55. Aristotle	Metaphysics	340	65	1026a	64
56. Aristotle	Metaphysics	340	66	1026a	65
57. Aristotle	Metaphysics	340	67	1026a	66
58. Aristotle	Metaphysics	340	68	1026a	67
59. Aristotle	Metaphysics	340	69	1026a	68
60. Aristotle	Metaphysics	340	70	1026a	69
61. Aristotle	Metaphysics	340	71	1026a	70
62. Aristotle	Metaphysics	340	72	1026a	71
63. Aristotle	Metaphysics	340	73	1026a	72
64. Aristotle	Metaphysics	340	74	1026a	73
65. Aristotle	Metaphysics	340	75	1026a	74
66. Aristotle	Metaphysics	340	76	1026a	75
67. Aristotle	Metaphysics	340	77	1026a	76
68. Aristotle	Metaphysics	340	78	1026a	77
69. Aristotle	Metaphysics	340	79	1026a	78
70. Aristotle	Metaphysics	340	80	1026a	79
71. Aristotle	Metaphysics	340	81	1026a	80
72. Aristotle	Metaphysics	340	82	1026a	81
73. Aristotle	Metaphysics	340	83	1026a	82
74. Aristotle	Metaphysics	340	84	1026a	83
75. Aristotle	Metaphysics	340	85	1026a	84
76. Aristotle	Metaphysics	340	86	1026a	85
77. Aristotle	Metaphysics	340	87	1026a	86
78. Aristotle	Metaphysics	340	88	1026a	87
79. Aristotle	Metaphysics	340	89	1026a	88
80. Aristotle	Metaphysics	340	90	1026a	89
81. Aristotle	Metaphysics	340	91	1026a	90
82. Aristotle	Metaphysics	340	92	1026a	91
83. Aristotle	Metaphysics	340	93	1026a	92
84. Aristotle	Metaphysics	340	94	1026a	93
85. Aristotle	Metaphysics	340	95	1026a	94
86. Aristotle	Metaphysics	340	96	1026a	95
87. Aristotle	Metaphysics	340	97	1026a	96
88. Aristotle	Metaphysics	340	98	1026a	97
89. Aristotle	Metaphysics	340	99	1026a	98
90. Aristotle	Metaphysics	340	100	1026a	99
91. Aristotle	Metaphysics	340	101	1026a	100
92. Aristotle	Metaphysics	340	102	1026a	101
93. Aristotle	Metaphysics	340	103	1026a	102
94. Aristotle	Metaphysics	340	104	1026a	103
95. Aristotle	Metaphysics	340	105	1026a	104
96. Aristotle	Metaphysics	340	106	1026a	105
97. Aristotle	Metaphysics	340	107	1026a	106
98. Aristotle	Metaphysics	340	108	1026a	107
99. Aristotle	Metaphysics	340	109	1026a	108
100. Aristotle	Metaphysics	340	110	1026a	109

TABLE II  
 RANGE OF OBTAINED INTELLIGENCE QUOTIENTS  
 ON PINTNER GENERAL ABILITY TESTS, VERBAL SERIES\*

Name	Date of Birth	Date of Testing	Chronological Age	Mental Age	Obtained I. Q.
Roy	3-27-33	2-7-49	15-11	5-2	33
Jack	8-25-33	2-7-49	15-6	6-11	45
Norma	2-24-33	2-10-49	16-0	8-5	53
Bruce	5-19-33	2-10-49	15-9	8-5	53
Thelma	10-3-34	2-10-49	14-4	8-5	59
Ralph	10-7-33	2-7-49	15-4	9-0	59
Gerald	8-15-32	2-7-49	16-6	10-4	60
Esther	9-21-35	2-7-49	13-5	8-3	62
Frances	4-10-33	2-10-49	15-10	9-9	62
Fred	10-3-34	2-7-49	14-4	9-1	62
Ronald	6-10-33	2-7-49	15-8	9-10	63
Ray	11-11-34	2-7-49	14-3	9-9	69
John	12-22-34	2-7-49	14-2	9-9	69
Wilburt	6-7-34	2-10-49	14-8	10-0	70
Lucille	11-26-34	2-14-49	14-3	9-6	83
Felix	12-2-33	2-14-49	15-2	12-8	84
Peter	9-13-35	2-10-49	13-5	13-1	97

\* There are only seventeen tests recorded due to the fact that Gordon Downes was transferred to another school before taking the test.

REPORT OF THE COMMISSIONER OF THE LAND OFFICE

FOR THE YEAR ENDING DECEMBER 31, 1897

STATE	COUNTY	TOWNSHIP	SECTION	ACRES	VALUE
ALABAMA	ALBANY	1	36	160	160
ALABAMA	ALBANY	1	37	160	160
ALABAMA	ALBANY	1	38	160	160
ALABAMA	ALBANY	1	39	160	160
ALABAMA	ALBANY	1	40	160	160
ALABAMA	ALBANY	1	41	160	160
ALABAMA	ALBANY	1	42	160	160
ALABAMA	ALBANY	1	43	160	160
ALABAMA	ALBANY	1	44	160	160
ALABAMA	ALBANY	1	45	160	160
ALABAMA	ALBANY	1	46	160	160
ALABAMA	ALBANY	1	47	160	160
ALABAMA	ALBANY	1	48	160	160
ALABAMA	ALBANY	1	49	160	160
ALABAMA	ALBANY	1	50	160	160
ALABAMA	ALBANY	1	51	160	160
ALABAMA	ALBANY	1	52	160	160
ALABAMA	ALBANY	1	53	160	160
ALABAMA	ALBANY	1	54	160	160
ALABAMA	ALBANY	1	55	160	160
ALABAMA	ALBANY	1	56	160	160
ALABAMA	ALBANY	1	57	160	160
ALABAMA	ALBANY	1	58	160	160
ALABAMA	ALBANY	1	59	160	160
ALABAMA	ALBANY	1	60	160	160
ALABAMA	ALBANY	1	61	160	160
ALABAMA	ALBANY	1	62	160	160
ALABAMA	ALBANY	1	63	160	160
ALABAMA	ALBANY	1	64	160	160
ALABAMA	ALBANY	1	65	160	160
ALABAMA	ALBANY	1	66	160	160
ALABAMA	ALBANY	1	67	160	160
ALABAMA	ALBANY	1	68	160	160
ALABAMA	ALBANY	1	69	160	160
ALABAMA	ALBANY	1	70	160	160
ALABAMA	ALBANY	1	71	160	160
ALABAMA	ALBANY	1	72	160	160
ALABAMA	ALBANY	1	73	160	160
ALABAMA	ALBANY	1	74	160	160
ALABAMA	ALBANY	1	75	160	160
ALABAMA	ALBANY	1	76	160	160
ALABAMA	ALBANY	1	77	160	160
ALABAMA	ALBANY	1	78	160	160
ALABAMA	ALBANY	1	79	160	160
ALABAMA	ALBANY	1	80	160	160
ALABAMA	ALBANY	1	81	160	160
ALABAMA	ALBANY	1	82	160	160
ALABAMA	ALBANY	1	83	160	160
ALABAMA	ALBANY	1	84	160	160
ALABAMA	ALBANY	1	85	160	160
ALABAMA	ALBANY	1	86	160	160
ALABAMA	ALBANY	1	87	160	160
ALABAMA	ALBANY	1	88	160	160
ALABAMA	ALBANY	1	89	160	160
ALABAMA	ALBANY	1	90	160	160
ALABAMA	ALBANY	1	91	160	160
ALABAMA	ALBANY	1	92	160	160
ALABAMA	ALBANY	1	93	160	160
ALABAMA	ALBANY	1	94	160	160
ALABAMA	ALBANY	1	95	160	160
ALABAMA	ALBANY	1	96	160	160
ALABAMA	ALBANY	1	97	160	160
ALABAMA	ALBANY	1	98	160	160
ALABAMA	ALBANY	1	99	160	160
ALABAMA	ALBANY	1	100	160	160

Report made by the Commissioner of the Land Office, Alabama, for the year ending December 31, 1897.



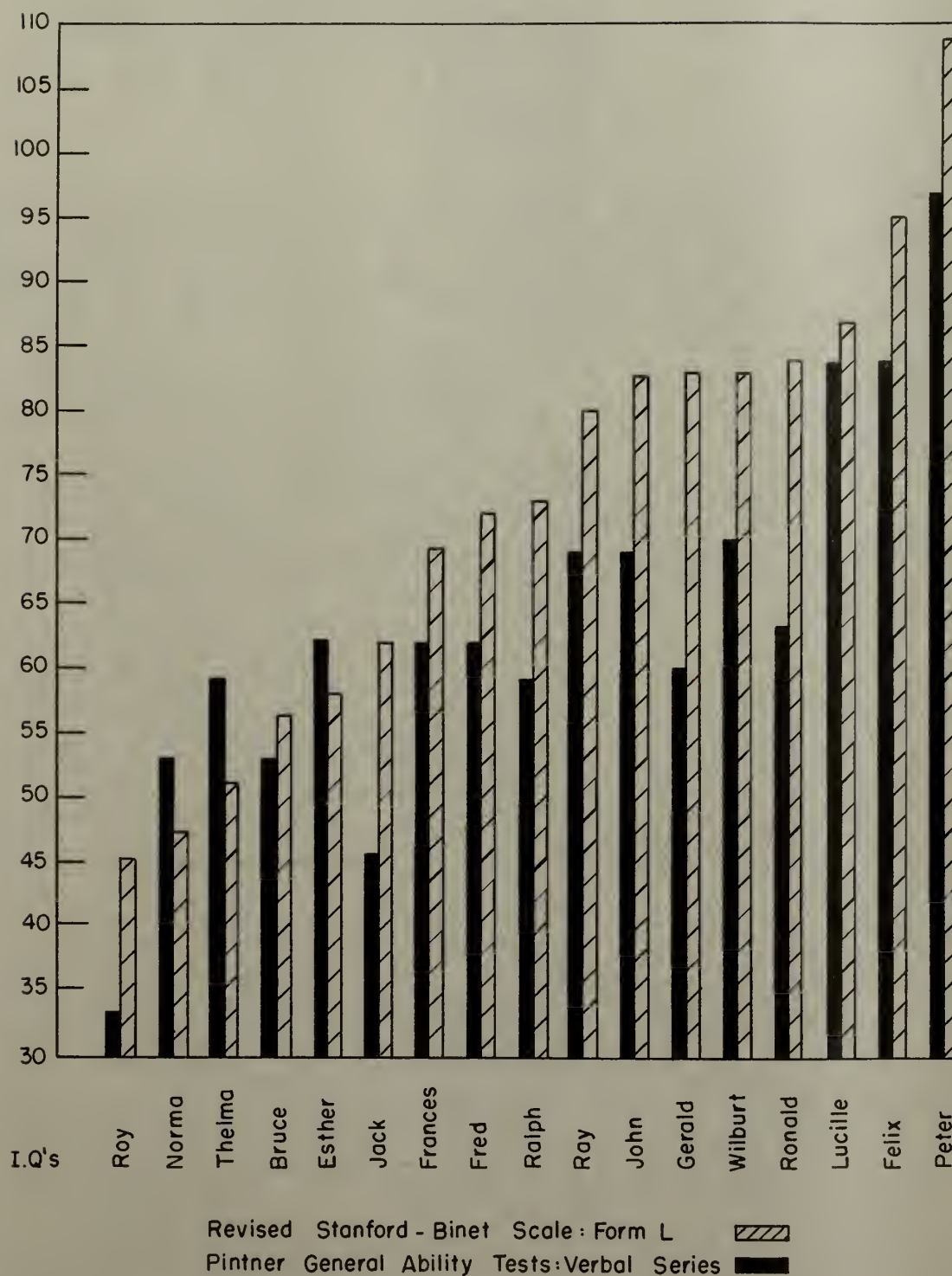




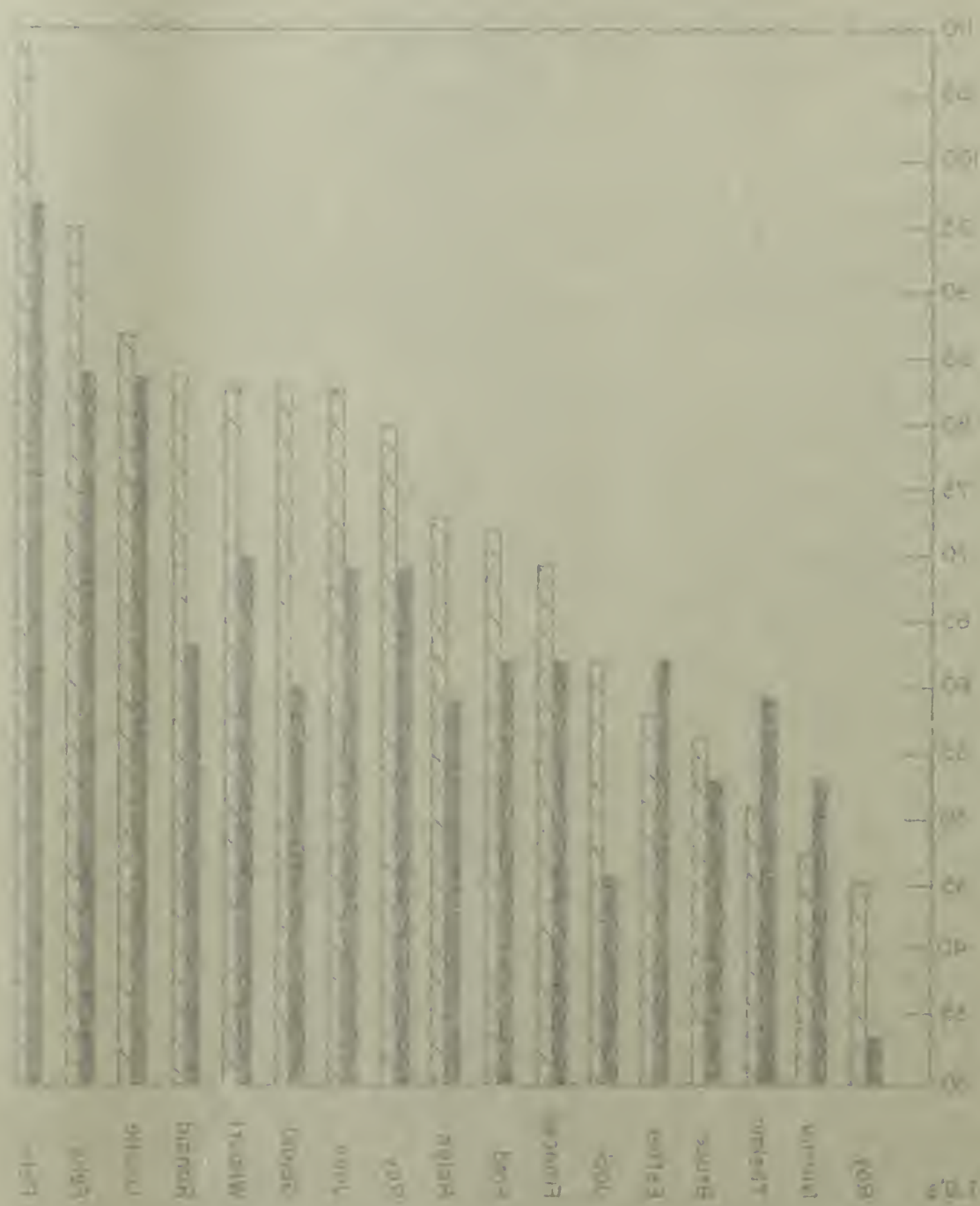
Figure I

A Comparison of I.Q.'s Obtained on the Revised Stanford-Binet Scale with those Obtained on the Pintner General Ability Tests.

A Comparison of LQs Obtained on the Revised Standard-Binet Scale with those Obtained on the Formboard-Appliqué Test.

Figure 3

Revised Standard-Binet Scale (Form 1)  1923  
 Formboard-Appliqué Test (Form 1)  1923



Scale: Form L, is shown in the following table:

TABLE III  
COMPARISON OF C. A. 'S, M. A. 'S, AND I. Q. 'S OF BOYS AND GIRLS

	<u>No.</u>	Mean <u>C. A.</u>	Mean <u>M. A.</u>	Mean <u>I. Q.</u>
Boys	13	14-9	10-12	79.1
Girls	5	14-8	8-9	62.4
Total	18	14-9	10-4	74.0

The Metropolitan Achievement Tests were used to determine the educational growth during the period of study. Alternate forms of the appropriate battery of tests were given at the beginning and at the end of the study. Each child was tested on the tool subjects with which he was receiving help in the special class. Table IV indicates the total average grade equivalent for those subjects and the total gain in educational growth, in the areas being tested, for each child.

The table also indicates that the total gain for each child is, except in one instance (Lucille), consistent with, or above, the expectation for his level of intelligence, as predicted on the basis of the obtained I. Q. Whereas there was a gain in total average achievement as indicated by Table IV, the individual summaries show that the educational growth is uneven in many cases, possibly indicating the need of different techniques of instruction for some children in certain subjects.

The individual summaries which follow point out the areas where the greatest gain was made as well as indicating the areas where the progress was disappointing.

REPORT OF THE BOARD OF TRUSTEES FOR THE YEAR ENDING DECEMBER 31, 1918

AMOUNT	PERCENT	AMOUNT	PERCENT
\$100,000.00	100.00	\$100,000.00	100.00
100,000.00	100.00	100,000.00	100.00
100,000.00	100.00	100,000.00	100.00
100,000.00	100.00	100,000.00	100.00

The Board of Trustees of the American Medical Association has the honor to acknowledge the receipt of the report of the Committee on the Revision of the Code of Ethics, which was presented to the Board at its meeting on December 17, 1918. The Committee's report is a most valuable contribution to the work of the Association, and the Board is deeply indebted to the Committee for its labors. The Board has decided to accept the recommendations of the Committee, and to adopt the revised Code of Ethics as the official code of the Association. The revised Code of Ethics is a most comprehensive and up-to-date statement of the principles and standards of the medical profession, and it is hoped that it will be widely adopted by the medical profession throughout the world. The Board also wishes to express its appreciation to the many individuals and organizations that have assisted the Association in its work during the past year. The Board is confident that the Association will continue to make progress in the future, and that it will be able to carry out its mission of promoting the health and welfare of the people.



TABLE IV  
ACHIEVEMENT SUMMARIES

Name	C. A.	M. A.	I. Q.	Average Grade Equivalent		Gain	Period of Study
				First Testing	Second Testing		
Roy	15-7	6-8	45	1.5	1.8	+ .3	6 months
Norma	16-0	7-0	47	2.0	2.2	+ .2	6 "
Thelma	14-1	7-0	51	2.7	2.9	+ .2	6 "
Bruce	15-5	8-2	56	3.2	3.4	+ .2	6 "
Esther	13-5	7-8	58	3.4	3.9	+ .5	6 "
Jack	15-7	9-2	62	3.3	3.9	+ .6	6 "
Frances	15-10	10-4	69	5.5	6.0	+ .5	5 "
Fred	14-1	9-10	72	2.5	3.0	+ .5	6 "
Ralph	15-1	10-6	73	3.6	4.0	+ .4	6 "
Ray	13-11	10-10	80	3.3	4.4	+1.1	6 "
John	14-4	11-6	83	2.9	4.2	+1.3	6 "
Gerald	16-2	12-6	83	3.9	4.6	+ .7	6 "
Wilburt	14-10	11-10	83	4.4	5.5	+1.1	6 "
Ronald	15-6	12-4	84	2.7	4.1	+1.4	6 "
Lucille	13-11	11-10	87	4.8	5.0	+ .2	6 "
Felix	15-4	13-10	95	6.4	7.0	+ .6	5 "
Gordon	12-8	13-0	103	3.3	4.0	+ .7	4 "
Peter	13-7	14-2	109	4.9	5.8	+ .9	5 "



Year	Month	Day	Time	Lat.	Long.	Alt.	Wind	Temp.	Hum.	Clouds	Remarks
1900	Jan	1	0800	10.0	150.0	1000	SE	60	80	100	Clear
1	Jan	2	0800	10.0	150.0	1000	SE	60	80	100	Clear
	Jan	3	0800	10.0	150.0	1000	SE	60	80	100	Clear
	Jan	4	0800	10.0	150.0	1000	SE	60	80	100	Clear
	Jan	5	0800	10.0	150.0	1000	SE	60	80	100	Clear
	Jan	6	0800	10.0	150.0	1000	SE	60	80	100	Clear
	Jan	7	0800	10.0	150.0	1000	SE	60	80	100	Clear
	Jan	8	0800	10.0	150.0	1000	SE	60	80	100	Clear
	Jan	9	0800	10.0	150.0	1000	SE	60	80	100	Clear
	Jan	10	0800	10.0	150.0	1000	SE	60	80	100	Clear
	Jan	11	0800	10.0	150.0	1000	SE	60	80	100	Clear
	Jan	12	0800	10.0	150.0	1000	SE	60	80	100	Clear
	Jan	13	0800	10.0	150.0	1000	SE	60	80	100	Clear
	Jan	14	0800	10.0	150.0	1000	SE	60	80	100	Clear
	Jan	15	0800	10.0	150.0	1000	SE	60	80	100	Clear
	Jan	16	0800	10.0	150.0	1000	SE	60	80	100	Clear
	Jan	17	0800	10.0	150.0	1000	SE	60	80	100	Clear
	Jan	18	0800	10.0	150.0	1000	SE	60	80	100	Clear
	Jan	19	0800	10.0	150.0	1000	SE	60	80	100	Clear
	Jan	20	0800	10.0	150.0	1000	SE	60	80	100	Clear
	Jan	21	0800	10.0	150.0	1000	SE	60	80	100	Clear
	Jan	22	0800	10.0	150.0	1000	SE	60	80	100	Clear
	Jan	23	0800	10.0	150.0	1000	SE	60	80	100	Clear
	Jan	24	0800	10.0	150.0	1000	SE	60	80	100	Clear
	Jan	25	0800	10.0	150.0	1000	SE	60	80	100	Clear
	Jan	26	0800	10.0	150.0	1000	SE	60	80	100	Clear
	Jan	27	0800	10.0	150.0	1000	SE	60	80	100	Clear
	Jan	28	0800	10.0	150.0	1000	SE	60	80	100	Clear
	Jan	29	0800	10.0	150.0	1000	SE	60	80	100	Clear
	Jan	30	0800	10.0	150.0	1000	SE	60	80	100	Clear
	Jan	31	0800	10.0	150.0	1000	SE	60	80	100	Clear

## INDIVIDUAL ACHIEVEMENT SUMMARIES

## ROY BARCARDI

Date of Birth: March 27, 1933  
 Date of Testing: October 21, 1948  
 C. A. 15-7; M. A. 6-8; Obtained I. Q. 45

Primary I Battery: Metropolitan Achievement Tests

	Grade Equivalent		<u>Gain or Loss</u>
	<u>Test 1: Form R</u>	<u>Test 2: Form S</u>	
Word Pictures	1.5	1.4	-.1
Word Recognition	1.2	1.6	+.4
Word Meaning	1.2	1.7	+.5
Average Reading	1.3	1.7	+.4
Numbers	2.1	2.3	+.2
Average Achievement	1.5	1.8	+.3

Period of Study: 6 months

## NORMA BENELLO

Date of Birth: February 24, 1933  
 Date of Testing: March 2, 1949  
 C. A. 16-0; M. A. 7-0; Obtained I. Q. 47

Primary I Battery: Metropolitan Achievement Tests

	Grade Equivalent		<u>Gain or Loss</u>
	<u>Test 1: Form R</u>	<u>Test 2: Form S</u>	
Word Pictures	2.0	2.1	+.1
Word Recognition	2.0	1.9	-.1
Word Meaning	2.0	2.1	+.1
Average Reading	2.0	2.1	+.1
Numbers	2.1	2.6	+.5
Average Achievement	2.0	2.2	+.2

Period of Study: 6 months

# THEORY OF THE EARTH

## CHAPTER I

THE EARTH IS A SPHERE, AND ITS SURFACE IS DIVIDED INTO TWO PARTS, THE NORTH AND SOUTH HALVES, BY A GREAT CIRCLE, CALLED THE EQUATOR.

THE PARTS OF THE EARTH WHICH ARE NORTH OF THE EQUATOR ARE CALLED THE NORTHERN HEMISPHERE, AND THOSE WHICH ARE SOUTH OF IT ARE CALLED THE SOUTHERN HEMISPHERE.

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## CHAPTER II

THE EARTH IS A SPHERE, AND ITS SURFACE IS DIVIDED INTO TWO PARTS, THE NORTH AND SOUTH HALVES, BY A GREAT CIRCLE, CALLED THE EQUATOR.

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## THELMA MARCONI

Date of Birth: October 3, 1934  
 Date of Testing: October 18, 1949  
 C. A. 14-1; M. A. 7-0; Obtained I. Q. 51

Primary I Battery: Metropolitan Achievement Tests

	Grade Equivalent		<u>Gain or Loss</u>
	<u>Test 1: Form R</u>	<u>Test 2: Form S</u>	
Word Pictures	2.6	2.7	+.1
Word Recognition	2.7	2.6	-.1
Word Meaning	2.8	3.1	+.3
Average Reading	2.7	2.8	+.1
Numbers	2.7	3.3	+.6
Average Achievement	2.7	2.9	+.2

Period of Study: 6 months

## BRUCE McKAY

Date of Birth: May 19, 1933  
 Date of Testing: October 19, 1948  
 C. A. 15-5; M. A. 8-2; Obtained I. Q. 56

Primary I Battery: Metropolitan Achievement Tests

	Grade Equivalent		<u>Gain or Loss</u>
	<u>Test 1: Form R</u>	<u>Test 2: Form S</u>	
Word Pictures	3.1	3.3	+.2
Word Recognition	3.4	3.3	-.1
Word Meaning	3.3	3.4	+.1
Average Reading	3.3	3.4	+.1
Numbers	2.8	3.5	+.7
Average Achievement	3.2	3.4	+.2

Period of Study: 6 months

# Table 1

Summary of the results of the analysis of variance for the effect of the treatment on the response variable.

Source of variation: Treatment, Error, Total

Source of variation	Sum of squares	D.F.	Mean square	F-value	Probability > F
Treatment	10.00	1	10.00	10.00	0.01
Error	9.00	9	1.00		
Total	19.00	10			

Significant at the 0.05 level of probability

# Table 2

Summary of the results of the analysis of variance for the effect of the treatment on the response variable.

Source of variation: Treatment, Error, Total

Source of variation	Sum of squares	D.F.	Mean square	F-value	Probability > F
Treatment	10.00	1	10.00	10.00	0.01
Error	9.00	9	1.00		
Total	19.00	10			

Significant at the 0.05 level of probability



## ESTHER MURDOCK

Date of Birth: September 21, 1935

Date of Testing: February 9, 1949

C. A. 13-5; M. A. 7-8; Obtained I. Q. 58

Intermediate Battery: Metropolitan Achievement Tests

	<u>Grade Equivalent</u>		<u>Gain or Loss</u>
	<u>Test 1: Form S</u>	<u>Test 2: Form R</u>	
Reading	3.4	3.6	+.2
Vocabulary	2.6*	3.3	+.7
Average Reading	3.0	3.5	+.5
Arithmetic Fundamentals	4.6	5.0	+.4
Arithmetic Problems	3.5	3.9	+.4
Average Arithmetic	4.1	4.5	+.4
English	2.7*	3.9	+1.2
Spelling	3.6	3.6	0
Average Achievement	3.4	3.9	+.5

Period of Study: 6 months

## JACK JOHNSTON

Date of Birth: August 25, 1933

Date of Testing: March 10, 1949

C. A. 15-7; M. A. 9-2; Obtained I. Q. 62

Intermediate Battery: Metropolitan Achievement Tests

	<u>Grade Equivalent</u>		<u>Gain or Loss</u>
	<u>Test 1: Form S</u>	<u>Test 2: Form R</u>	
Reading	3.4	3.6	+.2
Vocabulary	3.1	3.9	+.8
Average Reading	3.2	3.8	+.6
Arithmetic Fundamentals	3.9	4.7	+.8
Arithmetic Problems	4.0	4.6	+.6
Average Arithmetic	3.9	4.7	+.8
English	2.3*	3.0	+.7
Spelling	3.2	3.6	+.4
Average Achievement	3.3	3.9	+.6

Period of Study: 6 months

\* Extrapolated Score

# Table 1

Summary of the results of the analysis of variance for the effect of the treatment on the response variable.

The results are presented in the following table.

Treatment	Response Variable	Mean	Standard Deviation	Standard Error	95% Confidence Interval
Control	Yield (kg/ha)	1.2	0.3	0.1	1.0 to 1.4
Treatment 1	Yield (kg/ha)	1.5	0.4	0.1	1.3 to 1.7
Treatment 2	Yield (kg/ha)	1.8	0.5	0.1	1.6 to 2.0
Treatment 3	Yield (kg/ha)	2.1	0.6	0.1	1.9 to 2.3
Treatment 4	Yield (kg/ha)	2.4	0.7	0.1	2.2 to 2.6

# Table 2

Summary of the results of the analysis of variance for the effect of the treatment on the response variable.

The results are presented in the following table.

Treatment	Response Variable	Mean	Standard Deviation	Standard Error	95% Confidence Interval
Control	Yield (kg/ha)	1.5	0.4	0.1	1.3 to 1.7
Treatment 1	Yield (kg/ha)	1.8	0.5	0.1	1.6 to 2.0
Treatment 2	Yield (kg/ha)	2.1	0.6	0.1	1.9 to 2.3
Treatment 3	Yield (kg/ha)	2.4	0.7	0.1	2.2 to 2.6
Treatment 4	Yield (kg/ha)	2.7	0.8	0.1	2.5 to 2.9

## FRANCES PHILLIPS

Date of Birth: April 10, 1933

Date of Testing: February 9, 1949

C. A. 15-10; M. A. 10-4; Obtained I. Q. 69

Intermediate Battery: Metropolitan Achievement Tests

	<u>Grade Equivalent</u>		
	<u>Test 1: Form S</u>	<u>Test 2: Form R</u>	<u>Gain or Loss</u>
Reading	4.6	4.7	+ .1
Vocabulary	7.7	7.5	- .2
Average Reading	6.2	6.1	- .1
Arithmetic Fundamentals	3.7	5.0	+1.3
Arithmetic Problems	4.0	4.3	+ .3
Average Arithmetic	3.9	4.7	+ .8
English	6.2	6.9	+ .7
Spelling	6.9	7.7	+ .8
Average Achievement	5.5	6.0	+ .5

Period of Study: 5 months

## FRED MARCONI

Date of Birth: October 3, 1934

Date of Testing: October 21, 1948

C. A. 14-1; M. A. 9-10; Obtained I. Q. 72

Primary I Battery: Metropolitan Achievement Tests

	<u>Grade Equivalent</u>		
	<u>Test 1: Form R</u>	<u>Test 2: Form S</u>	<u>Gain or Loss</u>
Word Pictures	2.6	3.0	+.4
Word Recognition	2.3	2.6	+.3
Word Meaning	2.0	2.7	+.7
Average Reading	2.3	2.8	+.5
Numbers	3.1	3.7	+.6
Average Achievement	2.5	3.0	+.5

Period of Study: 6 months

TABLE 1

Summary of the results of the analysis of variance for the effect of the treatment on the response of the subjects to the test

(The results are given in the form of the mean and standard deviation for each treatment group)

Treatment	Mean	Standard Deviation	Significance
Control	1.2	0.5	
Treatment A	1.5	0.6	
Treatment B	1.8	0.7	
Treatment C	2.1	0.8	
Treatment D	2.4	0.9	
Treatment E	2.7	1.0	
Treatment F	3.0	1.1	
Treatment G	3.3	1.2	
Treatment H	3.6	1.3	
Treatment I	3.9	1.4	
Treatment J	4.2	1.5	
Treatment K	4.5	1.6	
Treatment L	4.8	1.7	
Treatment M	5.1	1.8	
Treatment N	5.4	1.9	
Treatment O	5.7	2.0	
Treatment P	6.0	2.1	
Treatment Q	6.3	2.2	
Treatment R	6.6	2.3	
Treatment S	6.9	2.4	
Treatment T	7.2	2.5	
Treatment U	7.5	2.6	
Treatment V	7.8	2.7	
Treatment W	8.1	2.8	
Treatment X	8.4	2.9	
Treatment Y	8.7	3.0	
Treatment Z	9.0	3.1	

TABLE 2

Summary of the results of the analysis of variance for the effect of the treatment on the response of the subjects to the test

(The results are given in the form of the mean and standard deviation for each treatment group)

Treatment	Mean	Standard Deviation	Significance
Control	1.2	0.5	
Treatment A	1.5	0.6	
Treatment B	1.8	0.7	
Treatment C	2.1	0.8	
Treatment D	2.4	0.9	
Treatment E	2.7	1.0	
Treatment F	3.0	1.1	
Treatment G	3.3	1.2	
Treatment H	3.6	1.3	
Treatment I	3.9	1.4	
Treatment J	4.2	1.5	
Treatment K	4.5	1.6	
Treatment L	4.8	1.7	
Treatment M	5.1	1.8	
Treatment N	5.4	1.9	
Treatment O	5.7	2.0	
Treatment P	6.0	2.1	
Treatment Q	6.3	2.2	
Treatment R	6.6	2.3	
Treatment S	6.9	2.4	
Treatment T	7.2	2.5	
Treatment U	7.5	2.6	
Treatment V	7.8	2.7	
Treatment W	8.1	2.8	
Treatment X	8.4	2.9	
Treatment Y	8.7	3.0	
Treatment Z	9.0	3.1	

## RALPH FROST

Date of Birth: October 7, 1933  
 Date of Testing: October 26, 1948  
 C. A. 15-1; M. A. 10-6; Obtained I. Q. 73

Intermediate Battery: Metropolitan Achievement Tests

	<u>Grade Equivalent</u>		
	<u>Test 1: Form S</u>	<u>Test 2: Form R</u>	<u>Gain or Loss</u>
Reading	3.8	3.6	- .2
Vocabulary	4.0	3.3	- .7
Average Reading	3.9	3.5	- .4
Arithmetic Fundamentals	4.8	5.5	+ .7
Arithmetic Problems	3.5	4.8	+1.3
Average Arithmetic	4.2	5.2	+1.1
English	2.7	3.3	+ .6
Spelling	3.0	3.0	0
Average Achievement	3.6	4.0	+ .4

Period of Study: 6 months

## RAY MOORE

Date of Birth: November 11, 1934  
 Date of Testing: October 8, 1948  
 C. A. 13-11; M. A. 10-10; Obtained I. Q. 80

Intermediate Battery: Metropolitan Achievement Tests

	<u>Grade Equivalent</u>		
	<u>Test 1: Form S</u>	<u>Test 2: Form R</u>	<u>Gain or Loss</u>
Reading	3.6	4.5	+ .9
Vocabulary	2.5*	3.5	+1.0
Average Reading	3.1	4.0	+ .9
Arithmetic Fundamentals	4.6	6.2	+1.6
Arithmetic Problems	4.9	6.0	+1.1
Average Arithmetic	4.8	6.1	+1.3
English	2.4*	3.5	+1.1
Spelling	2.0*	3.1	+1.1
Average Achievement	3.3	4.4	+1.1

Period of Study: 6 months

\* Extrapolated Score



# Table 1

Table 1. Summary of the results of the analysis of variance for the effect of the treatment on the response variable.

Table 1. Summary of the results of the analysis of variance for the effect of the treatment on the response variable.

Table 1. Summary of the results of the analysis of variance for the effect of the treatment on the response variable.

Treatment	Response Variable	Mean	Standard Error	95% CI
Control	Yield (kg/ha)	1.2	0.1	1.0 - 1.4
T1	Yield (kg/ha)	1.5	0.1	1.3 - 1.7
T2	Yield (kg/ha)	1.8	0.1	1.6 - 2.0
T3	Yield (kg/ha)	2.1	0.1	1.9 - 2.3
T4	Yield (kg/ha)	2.4	0.1	2.2 - 2.6
T5	Yield (kg/ha)	2.7	0.1	2.5 - 2.9

Table 1. Summary of the results of the analysis of variance for the effect of the treatment on the response variable.

# Table 2

Table 2. Summary of the results of the analysis of variance for the effect of the treatment on the response variable.

Table 2. Summary of the results of the analysis of variance for the effect of the treatment on the response variable.

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Table 2. Summary of the results of the analysis of variance for the effect of the treatment on the response variable.

Treatment	Response Variable	Mean	Standard Error	95% CI
Control	Yield (kg/ha)	1.2	0.1	1.0 - 1.4
T1	Yield (kg/ha)	1.5	0.1	1.3 - 1.7
T2	Yield (kg/ha)	1.8	0.1	1.6 - 2.0
T3	Yield (kg/ha)	2.1	0.1	1.9 - 2.3
T4	Yield (kg/ha)	2.4	0.1	2.2 - 2.6
T5	Yield (kg/ha)	2.7	0.1	2.5 - 2.9

Table 2. Summary of the results of the analysis of variance for the effect of the treatment on the response variable.

Table 2. Summary of the results of the analysis of variance for the effect of the treatment on the response variable.

## JOHN FARNSWORTH

Date of Birth: December 22, 1934

Date of Testing: April 13, 1949

C. A. 14-4; M. A. 11-6; Obtained I. Q. 83

Intermediate Battery: Metropolitan Achievement Tests

	<u>Grade Equivalent</u>		<u>Gain or Loss</u>
	<u>Test 1: Form S</u>	<u>Test 2: Form R</u>	
Reading	3.4	4.6	+2.2
Vocabulary	2.8*	4.3	+1.5
Average Reading	3.1	4.5	+1.4
English	2.8*	4.2	+1.4
Spelling	2.4*	3.5	+1.1
Average Achievement	2.9	4.2	+1.3

Period of Study: 6 months

## GERALD WHITE

Date of Birth: August 15, 1932

Date of Testing: October 25, 1948

C. A. 16-2; M. A. 12-6; Obtained I. Q. 83

Intermediate Battery: Metropolitan Achievement Tests

	<u>Grade Equivalent</u>		<u>Gain or Loss</u>
	<u>Test 1: Form S</u>	<u>Test 2: Form R</u>	
Reading	3.4	4.5	+1.1
Vocabulary	3.1	4.4	+1.3
Average Reading	3.3	4.5	+1.2
Arithmetic Fundamentals	4.7	5.4	+ .7
Arithmetic Problems	4.3	4.6	+ .3
Average Arithmetic	4.5	5.0	+ .5
English	4.1	4.7	+ .6
Spelling	3.6	4.1	+ .5
Average Achievement	3.9	4.6	+ .7

Period of Study: 6 months

\* Extrapolated Score



## WILBURT HUBLEY

Date of Birth: June 7, 1934  
 Date of Testing: April 13, 1949  
 C. A. 14-10; M. A. 11-10; Obtained I. Q. 83

## Intermediate Battery: Metropolitan Achievement Tests

		<u>Grade Equivalent</u>		<u>Gain or Loss</u>
		<u>Test 1: Form S</u>	<u>Test 2: Form R</u>	
Reading	3.9		4.6	+ .7
Vocabulary	3.5		5.4	+1.9
Average Reading	3.7		5.0	+1.3
Arithmetic Fundamentals	4.3		5.8	+1.5
Arithmetic Problems	4.2		5.1	+ .9
Average Arithmetic	4.2		5.5	+1.3
English	4.6		6.1	+1.5
Spelling	6.0		5.6	- .4
Average Achievement	4.4		5.5	+1.1

Period of Study: 6 months

## RONALD TRAVERS\*

Date of Birth: June 10, 1933  
 Date of Testing: December 14, 1948  
 C. A. 15-6; M. A. 12-4; Obtained I. Q. 84

## Metropolitan Achievement Tests

<u>Primary I Battery: Form R</u>		<u>Intermediate Battery: Form R</u>		<u>Gain or Loss</u>
<u>Test 1</u>		<u>Test 2</u>		
Word Pictures	2.6	Reading	3.9	
Word Recognition	2.3	Vocabulary	3.1	
Word Meaning	3.0			
Average Reading	2.8	Average Reading	3.5	+ .7
Numbers	3.0	Arithmetic Fundamentals	4.6	
		Arithmetic Problems	4.3	
		Average Arithmetic	4.5	+1.5
Average Achievement	2.7	Average Achievement	4.1	+1.4

Period of Study: 5 months

\* See case study for explanation of two test batteries.





## LUCILLE COLLINS

Date of Birth: November 25, 1934

Date of Testing: October 25, 1948

C. A. 13-11; M. A. 11-10; Obtained I. Q. 87

Intermediate Battery: Metropolitan Achievement Tests

	<u>Grade Equivalent</u>		<u>Gain or Loss</u>
	<u>Test 1: Form S</u>	<u>Test 2: Form R</u>	
Arithmetic Fundamentals	4.7	4.7	0
Arithmetic Problems	4.9	5.3	+ .4
Average Arithmetic	4.8	5.0	+ .2

Period of Study: 6 months

## FELIX TRENT

Date of Birth: December 2, 1933

Date of Testing: March 28, 1949

C. A. 15-4; M. A. 13-10; Obtained I. Q. 95

Intermediate Battery: Metropolitan Achievement Tests

	<u>Grade Equivalent</u>		<u>Gain or Loss</u>
	<u>Test 1: Form S</u>	<u>Test 2: Form R</u>	
Arithmetic Fundamentals	5.7	6.8	+1.1
Arithmetic Problems	7.0	7.1	+ .1
Average Arithmetic	6.4	7.0	+ .6

Period of Study: 5 months



## GORDON DOWNES

Date of Birth: March 3, 1936  
 Date of Testing: October 18, 1948  
 C. A. 12-8; M. A. 13; Obtained I. Q. 103

Intermediate Battery: Metropolitan Achievement Tests

	<u>Grade Equivalent</u>		<u>Gain or Loss</u>
	<u>Test 1: Form S</u>	<u>Test 2: Form R</u>	
Reading	3.6	4.1	+.5
Vocabulary	2.9	3.8	+.9
Average Reading	3.3	4.0	+.7

Period of Study: 4 months

## PETER TRENT

Date of Birth: September 13, 1935  
 Date of Testing: April 4, 1949  
 C. A. 13-7; M. A. 14-2; Obtained I. Q. 109

Intermediate Battery: Metropolitan Achievement Tests

	<u>Grade Equivalent</u>		<u>Gain or Loss</u>
	<u>Test 1: Form S</u>	<u>Test 2: Form R</u>	
Arithmetic Fundamentals	4.8	6.5	+1.7
Arithmetic Problems	4.9	5.1	+ .2
Average Arithmetic	4.9	5.8	+ .9

Period of Study: 5 months



## CONCLUSIONS

The following conclusions have been reached as a result of the objective data obtained from the study.

The educational achievement of eighteen children was measured. Of that number, all eighteen made a gain in educational growth. One achieved less than his I. Q. would indicate him capable of doing; five achieved at a rate consistent with their I. Q. ratings; and the remaining twelve achieved more than their I. Q.'s would indicate them capable of doing.

Whereas the amount of gain was not entirely dependent upon the I. Q.'s, it was influenced by them. The least gain was made by those with I. Q.'s from 45 to 56, and the greatest gain was made by children with I. Q.'s from 80 to 84, inclusive. The exception to this was the case of the child with an I. Q. of 87 whose educational growth was less than his level of intelligence would indicate him able of achieving.

The obtained I. Q.'s from the Revised Stanford-Binet Scale: Form L (an individual test) were generally higher than those obtained on the Pintner General Ability Tests (group tests). Both tests, however, showed a range of intelligence as measured by I. Q.'s of 64 points. Although there were variations within the range of scores, the same children maintained their positions at the extremes on both tests. The highest scores were Binet--I. Q. of 109 and Pintner--I. Q. of 97, and the lowest were Binet--I. Q. of 45 and Pintner--I. Q. of 33.

The educational growth of a retarded child is necessarily limited by his level of intellectual maturity; that is, there are limits beyond which he cannot achieve. However, in predicting the educational growth



CHAPTER I

The first part of the book is devoted to a general introduction to the subject of the history of the English language. It begins with a discussion of the various factors which have influenced the development of the language, such as the contact with other languages, the influence of the social and political conditions, and the changes in the pronunciation and grammar. The author then proceeds to a detailed account of the history of the English language from its earliest beginnings to the present day. He discusses the various stages of the language, from the Old English of the Anglo-Saxons to the Middle English of the Middle Ages, and finally to the Modern English of the present day. He also discusses the various dialects of the English language and the influence of the different regions on the development of the language. The book is written in a clear and concise style, and it is well illustrated with examples of the language in different periods and dialects. It is a valuable work for anyone who is interested in the history of the English language.

possible for any one child, it is necessary to consider the physical, social, and emotional factors, as well as the mental factor. An example from this study shows one child with a M. A. of 9 years and 2 months and an obtained I. Q. of 62 making an educational growth of six months for the six-month period, whereas another child with a M. A. of 11 years and 10 months and an obtained I. Q. of 87 made a gain of two months during the six-month period.

✓ An educational program, centered about the needs of the individual child, will, other factors being favorable, result in educational growth for the seriously retarded child as well as for the child with a higher level of intellectual ability.

In a consideration of the "whole" child, the following conclusions, while based on subjective observation rather than objective data, are pertinent to the study.

The mentally retarded child is happy in a class where the work is centered about the interests and needs of his particular level of intelligence.

A better planned program for each individual child will result from a thorough knowledge of the child, his needs, his interests, his abilities, and his limitations, together with an understanding of his home life and total environment.

The class morale is high in a school situation where each child is working at his own level of achievement and when he is able to see evidences of his progress.



## CHAPTER VI

### LIMITATIONS AND NEEDED RESEARCH

#### LIMITATIONS OF THE STUDY

The value of this study would have been greater if there had been a control group working under accepted special class procedures but without an effort being made to know the individual child and to interpret his reactions in the light of his environment, thus enabling a comparison of the educational growth of the two groups.

A more objective measurement of the social and emotional maturity of each child and an evaluation of his needs in these two areas would have been desirable.

A more accurate measure of educational achievement could have been obtained if the study had covered a full year's work.

The testing program was spread over a longer period than is desirable. It would have been far better had it been possible for all of the Binet tests to have been administered in the fall of 1948. By so doing, greater use could have been made of the data obtained.

More reliable results would doubtless be obtained from the testing program providing a definite time could be set aside for that purpose.

Many retarded children are at a disadvantage when they take a battery of standardized tests, due to the fact that there is often a wider range in their level of achievement than the test is prepared to cover. More accurate results would be obtained if parts of different batteries were





used, according to each child's level in the various tool subjects.

The fact that the group of children studied was made up of some who are of very limited mental capacity as represented by an obtained I. Q. of 45, while others were of normal intelligence as represented by an obtained I. Q. of 107 made it impossible to fully meet the needs of all the children all the time. Had the study been conducted with children, all of whom were mentally handicapped, or with children with educational handicaps only, the results would have greater value as the the results could be used as a basis for predicting educational growth for a "typical" special class.

#### SUGGESTED RESEARCH

A wide variation was often noted between the I. Q.'s obtained on the Stanford-Binet Scale and the Pintner Tests of General Ability. A study conducted with a representative population of retarded children, both mentally and educationally, would be valuable in determining whether children with different degrees of retardation tend to follow a set pattern or whether their responses fluctuate according to their emotional and social status at the time of testing.

A study to determine the amount of guessing done on achievement tests by mentally retarded children and educationally retarded children who are of normal intelligence would be of value.

Because of the distorted ideas which mentally retarded children form through listening to certain radio and television programs, a study in which these influences were evaluated should prove valuable in helping to develop a school program which could counteract their harmful social and



emotional effects.

A study, the purpose of which would be to develop more adequate instructional material for special-class work, is greatly needed.

Objective tests, standardized on a population of mentally retarded children and covering those areas in the various school subjects which the mentally handicapped should know before leaving school would be a valuable contribution to the field of special education.



## APPENDIX





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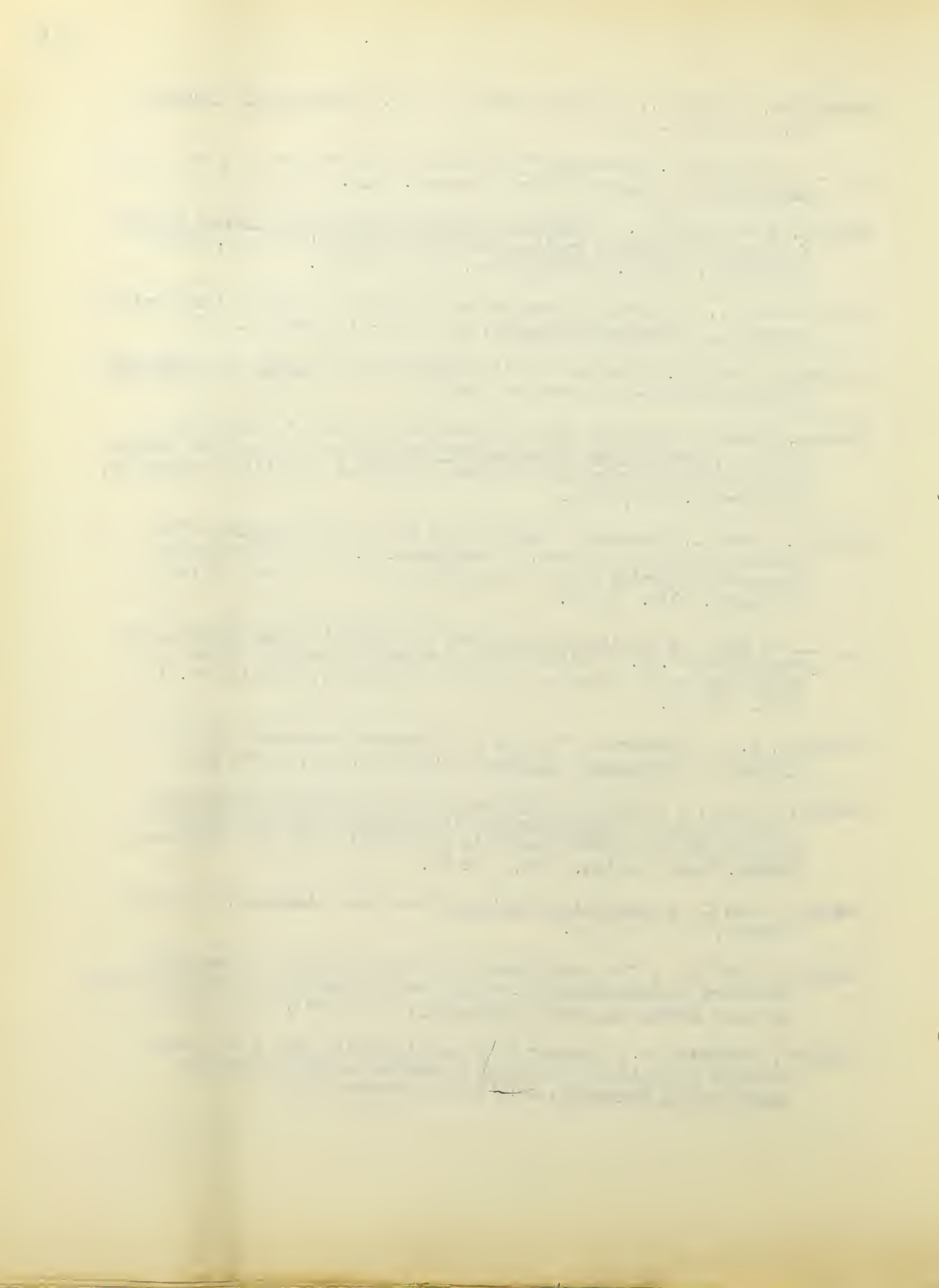
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# METROPOLITAN ACHIEVEMENT TESTS

## PRIMARY I BATTERY: FORM R

Prim. I

BY GERTRUDE H. HILDRETH, PH.D.

R

Name ..... Boy..... Girl.....

Teacher..... Grade..... School.....

City..... County..... State.....

.....  
Year      Month      Day  
Date of Testing

.....  
Year      Month      Day  
Date of Birth

Age ..... yrs. .... mos.

TEST	STAND- ARD SCORE	GRADE EQUIVA- LENT	
1. WORD PICT.			
2. WORD RECOG.			
3. WORD MEAN.			
AVER. READING		*	*
4. NUM- BERS			
AVERAGE ACH'T			

\*Do not include when figuring  
average achievement.

★	Test 1	Test 2	Test 3	Test 4	AVE. ACH'T	★	†
	READING W'd Pict.	READING W'd Rec.	READING W'd Mean.	ARITH. Numbers			
Age Equivalent Scale	8-11					4.5	
	8-10						
	8-9						
	8-8						
	8-7						
	8-6					4.0	
	8-5						
	8-4						
	8-3						
	8-2						
	8-1					3.5	
	7-11						
	7-10						
	7-9						
	7-8					3.0	
	7-7						
	7-6						
	7-5						
	7-4						
	7-3					2.5	
Grade Equivalent Scale	7-2						
	7-1						
	7-0						
	6-11					2.0	
	6-10						
	6-9						
	6-8						
	6-7						
	6-6					1.5	
	6-5						
	6-4						
	6-3						
	6-2						
	6-1					1.0	
	6-0						

\* These two scales are independent. Only one should  
be used at one time. In plotting this chart, put an X in  
the box above the scale which is to be used.

† An additional scale is provided here in order to make  
it possible to plot the chart in terms of norms other than  
those of age or grade.

The Profile Chart is designed to furnish a graphic picture  
of the achievement of an individual pupil as revealed by  
his test scores. The equivalent (grade, age, or other type)  
of each test score should be plotted on the proper stave  
and these points joined to make the profile.

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## TEST I. READING — WORD PICTURE

a



cat  
mouse  
drum  
pig



b



a little bear  
a white rabbit  
a pretty ring



1-4



baby  
cup  
bell  
chair



5-8



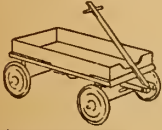
corn  
hand  
egg  
apple



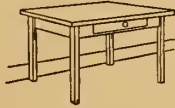
9-12



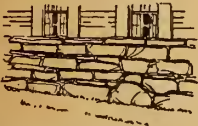
car  
house  
father  
gate



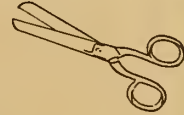
13-16



wheel  
table  
coat  
money



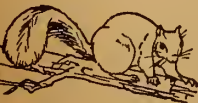
17-20



scissors  
horn  
flower  
jump



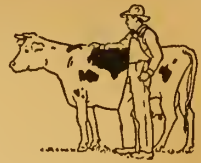
21-24



basket  
seat  
leaves  
squirrel



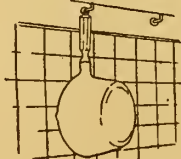
25-27



the farmer and his cow  
a dog chasing a rat  
a cake with candles



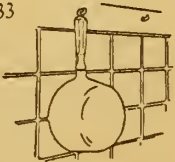
28-30



three sheep  
a man is at the door  
a coat on a hook



31-33



a pair of shoes  
a turtle in a box  
a pan on the stove





34-36



fish in a bowl  
a girl at the window  
a fire under a kettle

37-39



a smiling face  
a horse takes a drink  
a plate and a spoon



40-42



the doll is having a bath  
the child cuts the bread  
a goat pulling a wagon



## TEST 2. READING — WORD RECOGNITION

- |             |           |           |         |
|-------------|-----------|-----------|---------|
| a. my       | be        | we        | me      |
| <hr/>       |           |           |         |
| b. pig      | big       | bid       | dig     |
| <hr/>       |           |           |         |
| c. go on    | in to     | go in     | go up   |
| <hr/>       |           |           |         |
| 1. ill      | all       | and       | ball    |
| <hr/>       |           |           |         |
| 2. rough    | round     | crowd     | sound   |
| <hr/>       |           |           |         |
| 3. may      | step      | tray      | stop    |
| <hr/>       |           |           |         |
| 4. with     | how       | wish      | both    |
| <hr/>       |           |           |         |
| 5. cabbages | carriages | vegetable | valley  |
| <hr/>       |           |           |         |
| 6. fished   | fishing   | wished    | finding |
| <hr/>       |           |           |         |
| 7. hid      | ham       | him       | hit     |
| <hr/>       |           |           |         |
| 8. one      | sly       | own       | only    |
| <hr/>       |           |           |         |
| 9. foot     | find      | food      | good    |
| <hr/>       |           |           |         |
| 10. water   | enter     | waste     | waiter  |
| <hr/>       |           |           |         |
| 11. far     | jam       | jar       | job     |
| <hr/>       |           |           |         |
| 12. hair    | hers      | fair      | war     |
| <hr/>       |           |           |         |



13. willow                  winning                  wonder                  window
- 
14. deer                          deep                          weed                          dip
- 
15. talking                  looking                  walking                  taking
- 
16. learn                          letter                          listen                          lesson
- 
17. she can                  we can                  they can                  she was
- 
18. give away                  come away                  come play                  gone today
- 
19. little animals                  large animals                  large apples                  lovely apples
- 
20. pretty dish                  pretty dress                  ugly dress                  party dress
- 
21. before him                  before them                  before her                  below him
- 
22. seven stones                  shining stars                  short sticks                  several stars
- 
23. hungry pets                  happy party                  happy people                  heavy package
- 
24. help them                  keep some                  look there                  keep them
- 
25. small slices                  all pieces                  small pieces                  small peaches
- 
26. he sighs                  she sings                  he sings                  the rings
-

## TEST 3. READING — WORD MEANING

a. house      boy      stone      mouse      man      father

---

b. ball      roll      pin      doll      skates      rose

---

1. black      night      orange      wash      purple      oil

---

2. woman      warm      mother      flower      cane      Jane

---

3. for      two      five      soon      seven      high

---

4. plant      fish      bird      boot      bee      airplane

---

5. bear      ear      moon      goat      wolf      gate

---

6. bell      soup      nuts      candy      drum      puppy

---

7. bowl      cup      bed      spoon      girl      nose

---

8. this      our      what      these      where      how

---

9. peas      banks      can      wheel      beets      cabbage

---

10. map      go      gold      walk      window      throw

---

11. key      weed      shoe      child      wall      lily

---

12. short      loud      wide      tell      cook      tall

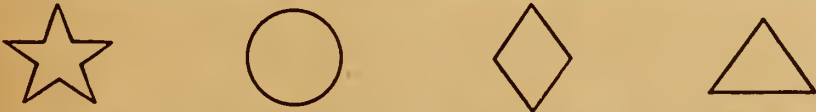
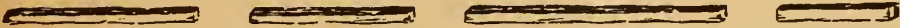
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No. right .....

No. wrong .....

Difference..... Stand. score..... Gr. equiv..... Age equiv.....

TEST 4. NUMBERS





7      1      9      3      2      6

1      5      4      9      0      7

9      4      6      1      8      2







2

5

4

6

3



8

1

25

10

12



5

6

4

1

3



4

8

2

3

7



4

6

7

1

8



9

12

10

6

5



10

12

8

9

6



6

3

12

10

9





2      9      7      19      17



24      17      36      9      14



3      12      20      6      10



4      7      6      17      19

$$\begin{array}{r} 1 \\ 3 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ 1 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ 4 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ 6 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ 0 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ 1 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ 2 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ 5 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ 7 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ 3 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ 5 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ 3 \\ \hline \end{array}$$

$$\begin{array}{r} 0 \\ 9 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ 6 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ 7 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ -1 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ -2 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ -5 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ -4 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ -7 \\ \hline \end{array}$$

METROPOLITAN ACHIEVEMENT TESTS

PRIMARY I BATTERY: FORM S

BY GERTRUDE H. HILDRETH, PH.D.

Prim. I  
S

Name ..... Boy..... Girl.....  
Teacher ..... Grade..... School.....  
City ..... County ..... State.....

..... Year ..... Month ..... Day .....  
Date of Testing  
..... Year ..... Month ..... Day .....  
Date of Birth  
Age ..... yrs. .... mos.

TEST	STAND- ARD SCORE	GRADE EQUIVA- LENT	
1. WORD PICT.			
2. WORD RECOG.			
3. WORD MEAN.			
AVER. READING		*	*
4. NUM- BERS			
AVERAGE ACH'T	X		

★	Test 1	Test 2	Test 3	Test 4	AVE. ACH'T	★	†
	READING W'd Pict.	READING W'd Rec.	READING W'd Mean.	ARITH. Numbers			
Age Equivalent Scale	8-11					4.5	
	8-10						
	8-9						
	8-8						
	8-7						
	8-6					4.0	
	8-5						
	8-4						
	8-3						
	8-2						
	8-1					3.5	
	7-11						
	7-10						
	7-9						
	7-8					3.0	
	7-7						
	7-6						
	7-5						
	7-4					2.5	
	7-3						
Grade Equivalent Scale	7-2						
	7-1						
	7-0						
	6-11					2.0	
	6-10						
	6-9						
	6-8						
	6-7					1.5	
	6-6						
	6-5						
	6-4						
	6-3						
	6-2						
	6-1						
	6-0					1.0	

\* These two scales are independent. Only one should be used at one time. In plotting this chart, put an X in the box above the scale which is to be used.

† An additional scale is provided here in order to make it possible to plot the chart in terms of norms other than those of age or grade.


















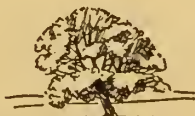

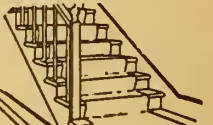











\* Do not include when figuring average achievement.

The Profile Chart is designed to furnish a graphic picture of the achievement of an individual pupil as revealed by his test scores. The equivalent (grade, age, or other type) of each test score should be plotted on the proper stave and these points joined to make the profile.

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## TEST 1. READING - WORD PICTURE

<p>a</p>   	 <p>cat mouse drum pig</p>	  
<p>b</p>   	  <p>a little bear a white rabbit a pretty ring</p>	  
<p>1-4</p>   	  <p>sun tree boat star</p>	  
<p>5-8</p>   	 <p>water animal kite boy</p>	   

9-12



children  
dress  
watch  
shoe



13-16



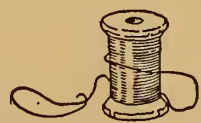
barn  
church  
bridge  
horse



17-20



bowl  
spoon  
teeth  
stocking



21-24



queen  
camel  
jacket  
newspaper





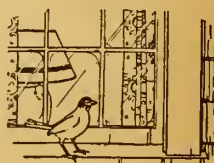
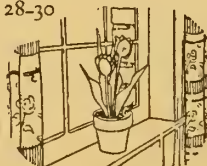
25-27



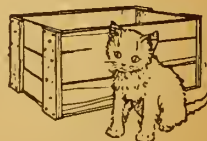
a boy and a girl  
the black kitten  
bread and milk



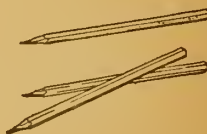
28-30



a kitten in a basket  
a child is eating apples  
a robin at the window



31-33



three pencils  
a plate of fruit  
a boat with a sail





34-36

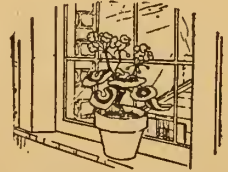


eggs in a bowl



a small cart

a flower in a pot



37-39



high rocks



a squirrel eating nuts

the farmer is digging



40-42



a dog asleep in a chair



a cottage by the road

children going to school



## TEST 2. READING — WORD RECOGNITION

- |           |        |         |       |
|-----------|--------|---------|-------|
| a. my     | be     | we      | me    |
| <hr/>     |        |         |       |
| b. pig    | big    | bid     | dig   |
| <hr/>     |        |         |       |
| c. go on  | in to  | go in   | go up |
| <hr/>     |        |         |       |
| 1. the    | see    | she     | sew   |
| <hr/>     |        |         |       |
| 2. are    | care   | arm     | sir   |
| <hr/>     |        |         |       |
| 3. his    | has    | her     | here  |
| <hr/>     |        |         |       |
| 4. dash   | spill  | splash  | shall |
| <hr/>     |        |         |       |
| 5. cook   | word   | will    | work  |
| <hr/>     |        |         |       |
| 6. branch | lunch  | bunch   | child |
| <hr/>     |        |         |       |
| 7. might  | nine   | night   | thin  |
| <hr/>     |        |         |       |
| 8. land   | hand   | band    | head  |
| <hr/>     |        |         |       |
| 9. catch  | search | scratch | watch |
| <hr/>     |        |         |       |
| 10. stay  | start  | cart    | stand |
| <hr/>     |        |         |       |
| 11. barn  | bark   | park    | dark  |
| <hr/>     |        |         |       |
| 12. when  | there  | were    | where |
| <hr/>     |        |         |       |

13. unless                      under                      until                      still
- 
14. hang                      hits                      high                      sign
- 
15. snow                      son                      ring                      song
- 
16. hard                      card                      harm                      held
- 
17. he gives                      we gave                      she gave                      they give
- 
18. baby chicks                      big gloves                      baby girls                      ball game
- 
19. he rings                      he thinks                      it rains                      she sighs
- 
20. after him                      after them                      catch her                      after her
- 
21. black hat                      blue shoes                      new shoes                      black shoes
- 
22. she has                      we had                      we have                      he has
- 
23. take yours                      keep young                      keep yours                      kind sirs
- 
24. fresh flowers                      few fruits                      fresh fruits                      few flowers
- 
25. run away                      run play                      came away                      ran away
- 
26. some stories                      smooth stones                      some stones                      stars shone
-

## TEST 3. READING — WORD MEANING

a. house      boy      stone      mouse      man      father

---

b. ball      roll      pin      doll      skates      rose

---

1. run      green      paint      brush      blue      brown

---

2. watch      apple      paper      water      table      eggs

---

3. very      four      here      late      six      nine

---

4. little      far      large      big      city      every

---

5. where      mine      who      that      when      those

---

6. cold      sold      snow      nice      ice      fence

---

7. story      fox      farm      flag      turkey      calf

---

8. lamp      run      book      winter      sing      jump

---

9. hear      arm      fat      head      foot      am

---

10. sang      bush      brass      grass      bottle      baby

---

11. ring      apron      bring      again      rain      ribbon

---

12. after      above      beside      before      across      always

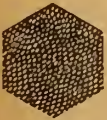
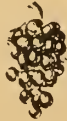
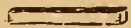
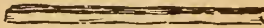
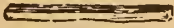
---

No. right.....

No. wrong.....

Difference..... Stand. score..... Gr. equiv..... Age equiv.....

## TEST 4. NUMBERS








7

3

2

4

5

8

5

8

2

7

9

0

9

4

6

1

8

2





2

5

4

6

3



7

1

9

8

4



4

7

5

6

8



3

1

4

5

2



4

6

7

1

8



3

4

10

5

9



1

6

3

2

4



6

3

2

1

9



9      6      18      15      8



36      14      21      8      24



3      12      20      6      10



19      5      11      27      7

$\begin{array}{r} 1 \\ 2 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ 2 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ 6 \\ \hline \end{array}$	$\begin{array}{r} 1 \\ 8 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ 3 \\ \hline \end{array}$
$\begin{array}{r} 3 \\ 3 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ 4 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ 0 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ 1 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ 2 \\ \hline \end{array}$
$\begin{array}{r} 5 \\ 6 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ 3 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ 9 \\ \hline \end{array}$	$\begin{array}{r} 0 \\ 8 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ 4 \\ \hline \end{array}$

$\begin{array}{r} 7 \\ -1 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ -2 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ -3 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ -8 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ -6 \\ \hline \end{array}$
--	--	--	--	--

# METROPOLITAN ACHIEVEMENT TESTS

## ELEMENTARY BATTERY: FORM R

BY RICHARD D. ALLEN, PH.D.

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WILLIAM L. CONNOR, M.A.

FREDERICK B. GRAHAM, PD.M.

AND GERTRUDE H. HILDRETH, PH.D.

Elem.

R

Name ..... Boy ..... Girl .....

Teacher ..... Grade ..... School .....

City ..... County ..... State .....

TEST	STAND- ARD SCORE	GRADE EQUIVA- LENT	
1. READ.			
2. VOCAB.			
AVER. READING		*	*
3. ARITH. FUND.			
4. ARITH. PROB.			
AVER. ARITH.		*	*
5. LANG. USAGE			
6. SPELL.			
AVERAGE ACH'T			

.....  
Year      Month      Day  
Date of Testing

.....  
Year      Month      Day  
Date of Birth

Age ..... yrs. .... mos.

\*Do not include when figuring  
average achievement.

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## TEST 1. READING: PART I

- a. The cow gives  
eggs      silk      mush      milk

Mother baked apples one day. She washed and cut the apples. She put plenty of sugar on them and put them in a pan. Then she baked the apples.

1. Mother cooked  
peaches      grapes      apples      corn
2. The sugar made the apples taste  
sweet      sour      bitter      burned

Henry and his brother Peter go to the country every summer. They go wading and fishing in the brook. One day Henry caught three fish and Peter caught five.

3. This story tells about two  
boys      fish      farms      brooks
4. Who caught the most fish?  
Father      Henry      Peter      Helen

The farmer has a big barn. It is a good place in which to play. One day we went to the barn. I climbed into the hay wagon and hid in the hay. My sister Ruth ran after me, but she could not find me. Then I called, "Here I am. Come and find me." But she could not find me until I jumped out of the hay.

5. I played in the barn with my  
cousin      brother      sister      father
6. I found a good hiding place in the  
house      woods      cellar      wagon
7. I called from my hiding place, "look out"  
"come away"      "find me"      "stay here"
8. The hay wagon was in the  
hayfield      yard      road      barn



A white rat in a wire cage at the University of Minnesota was taught to work a machine to get his food. Above his wire cage hung a chain. The rat learned that when he pulled this chain, a marble would fall down into his cage. When he picked up the marble and put it into a hole in the floor, food dropped into the feeding tray. The amount of food was small, but the rat worked hard and did the trick enough times to get a good meal. It took the rat two months to learn this method for getting his food.

9. The rat learned to work a machine to get  
water      air      food      sunlight
  10. Above the rat's cage hung a  
chair      rope      picture      chain
  11. To get his food, the rat used a  
marble      rock      penny      ball
  12. To learn this trick took the rat  
2 weeks      2 months      2 years      2 days
- 

In China many families live on rivers. It is cheaper to live on water than on land because there is no landlord to collect rent. Whole families live on houseboats. The children play on the decks. Every child carries a tiny barrel on his back as a life preserver. When a child falls overboard, the barrel enables him to keep afloat until someone pulls him out.

13. In China many families live in  
trailers      tents      igloos      houseboats
14. As a life preserver, a Chinese child wears on his back a  
tube      barrel      bottle      balloon
15. Many Chinese people would rather live on water than on land because  
it is  
cheaper      wetter      safer      healthier

Lena was a tawny brown leopard. In the daytime she kept to her den in the African jungle or roamed the plains. At night she crept down to the village to look for food. Each morning the villagers found a lamb or goat missing, and each morning they saw fresh tracks of the leopard. Mothers kept their children close to them in the evening for fear that sometime a child, too, might be stolen. Finally some of the men of the village made a trap among the bushes, and one morning they found Lena caught.

16. Lena was a  
fox      leopard      lamb      lion
17. She often stole  
chickens      children      leopards      goats
18. Lena was caught  
in a tree      in her den      in a trap      on the plain
19. People were afraid Lena might steal  
a child      food      a leopard      a trap
- 

My sister and I decided one early spring day to start a window garden. In planting our window garden we first put stones in the bottom of the box. Next we put in some moss and on top of that a layer of dirt. On the dirt we sprinkled some pansy seeds. We covered them with dirt and then watered them. Over the top we put a newspaper to keep the water from drying out too rapidly.

20. We planted our garden      in a window box  
in the front yard      at school      on the farm
21. The first thing we put in the box was  
paper      moss      stones      peat
22. A newspaper was used to keep the seeds  
cool      clean      dark      damp
23. The seeds were covered with  
blossoms      moss      stones      dirt

Norman has an interesting hobby. It is studying birds. He has an assortment of seventeen different birds' nests and a collection of eggs. His uncle gave him a stuffed owl and an eagle he captured out hunting one day. Norman sometimes gets up very early in the morning to go on bird hunts and to photograph wild life. Once he noticed an owl catching mice for food. A mouse began running frantically, but the owl swooped down, captured the mouse, and disappeared among the trees.

24. Norman enjoys        catching owls  
       riding in the woods        feeding the animals        studying birds
25. The mouse was  
       frightened        eager        happy        timid
26. Norman's uncle encourages the boy to keep on with his  
       mice        hobby        shooting        fishing
- 

The fur of the mink is popular because of its quality and its rarity. Raising minks for their furs is called mink ranching. The pelts from ranch minks are now considered better than those from wild minks. Because minks fight with each other, they are kept in separate small pens. These have wire floors and tops and are raised off the ground. The minks are fed mostly raw meat or fish. The young minks, called kits, are born in spring, sometimes as many as ten in a litter. In the early winter they are killed and their skins or pelts are prepared for use in fur coats and other articles.

27. A young mink is called a  
       pelt        kit        litter        cub
28. The floor of a mink's pen is made of  
       dirt        wood        wire        leaves
29. Minks are killed for their furs in the  
       early fall        summer        spring        early winter
30. Minks are often fed  
       popcorn        carrots        baked potatoes        raw meat

I shall never forget the first train that ran by. I was feeding quietly near the fence which separated the meadow from the railway, when I heard a strange sound at a distance. Before I knew where it came from, a long black train roared past, and was gone almost before I could draw my breath. I turned and galloped to the farther side of the meadow as fast as I could go, and there I stood snorting with astonishment and fear.

31. This story is told by a  
man      horse      boy      train
32. He was frightened by a  
fence      railway      meadow      train
33. He became frightened while he was  
eating      galloping      snorting      listening
34. The object that frightened him was      moving slowly  
moving rapidly      galloping      feeding quietly
- 

Soft coal burns easily. It is not hard to start a soft-coal fire. A little burning kindling soon sets the coal on fire. Soft coal burns with a bright flame. It often gives off thick clouds of black smoke. A large amount of ashes is left when soft coal is burned.

Hard coal is not easily broken into pieces. It is not as dirty as soft coal. The coal is hard to start burning. More kindling is needed to set hard coal burning than soft coal. Hard coal burns with little smoke. It burns more slowly and gives a hot fire for a longer time. Not many ashes are left after hard coal is burned.

35. To start a coal fire, it is desirable to have  
kindling      smoke      water      ashes
36. The coal that is cleaner to handle is  
old      soft      hard      hot
37. The coal that is harder to start burning gives the most  
lasting fire      ashes      clouds of smoke      dirt
38. A soft-coal fire      requires much kindling  
is hard to start      gives off much smoke      leaves few ashes



The night had been rainy. Where the young gentleman stood, a pool of muddy water interrupted the Queen's passage. As she hesitated, gallant young Raleigh threw his coat on the miry spot. He accompanied this act of devoted courtesy with a profound reverence and a blush which spread over his countenance. The Queen was confused and blushed in turn. She nodded and passed on without saying a word.

39. To help the Queen, Raleigh used  
 an umbrella      his coat      his countenance      a reverence
40. The Queen responded to Raleigh by      confusing him  
 saying nothing      thanking him      giving him a curtsy
41. Raleigh was  
 insolent      hesitant      courteous      unhappy
- 

Canals can be dug in almost any level plain, but they cost so much that it pays to build a canal only where there is sure to be a large amount of freight. Canal traffic is always slow; for if fast steamboats were used, the waves which they cause would soon wear away the banks and fill the canals. Often barges are used in great numbers, and are slowly drawn by tugboats, horses, donkeys, or even men. In China, Japan, and Europe even such slow transportation is important.

42. Canals are most profitable      where there is much traffic  
 in mountain districts      through deserts      in warm climates
43. Vessels most commonly used in canals are  
 steamboats      barges      ocean liners      fast freighters
44. Boats going through canals always  
 are pulled by horses      are steamboats  
 move slowly      cause large waves

**STOP!**



## PART II

SAMPLE. Dick, Tom, and Fred are brothers. The names ( ) *a*  
of Dick's brothers are (a) and (b) . . . . . ( ) *b*

45. History is the story of what has happened. To  
learn about the past of the United States, we read its  
(45) . . . . . ( ) 45

46-49. Ripe apples, as we all know, fall from the  
tree. This may be a serious matter to a (46) who owns ( ) 46  
a big orchard. The fallen apple gets bruised and must  
be sold at a lower (47). Now the farmers are learning ( ) 47  
how to keep the apples on the (48) until they want to ( ) 48  
pick them. A new material has been developed which  
can be sprayed on the branches and fruit and which will  
keep the (49) from falling. . . . . ( ) 49

50-54. When you read a line of print, your eyes move  
across the page in jumps. If you are a good (50), ( ) 50  
your (51) make three or four jumps to a line. If you ( ) 51  
are a (52) reader, your eyes may make as many as ( ) 52  
eight or ten (53) to a (54) . . . . . ( ) 53  
( ) 54

55-59. A motorboat has an engine like the one in an  
automobile. The engines of most motorboats run on ( ) 55  
gasoline, just as the (55) engine does. However, the ( ) 56  
(56) of some of the larger motorboats run on crude ( ) 56  
oil. In some small boats the motor is attached over  
the stern and is called an outboard (57). The motor- ( ) 57  
boat does not go so fast as a car with an engine of the ( ) 58  
same power, because it is harder for the (58) to go  
through water than for the (59) to roll on land. . . . . ( ) 59

60-64. Ever since man has lived on the earth, he  
has had some form of wealth. He always has had things  
which are useful and valuable to him. Not everything  
which is useful is wealth. We could not live without ( )  
air, but (60) is not wealth. It is not (61) because ( ) 61  
there is an unlimited supply of it. You can get all you  
want of it without cost. If you own a spring, you  
can get all the water you want without (62). In this ( ) 62  
case (63) is not wealth. But if you get water in your ( ) 63  
house through pipes, you have to (64) for it. In this  
case water is wealth. . . . . ( ) 64

65-67. In colonial days, the center of home life was the huge fireplace. This was the source of heat for cooking and for (65) the house. Fire making was( ) 65 difficult, since matches were unknown. It was necessary to keep a supply of live coals overnight by covering( ) 66 them with ashes. If the (66) went out, the family had to borrow (67) from a neighbor.....( ) 67

68-71. Science is finding out that the water we drink affects our lives far more than we know. Now we are told that the (68) we drink has a great deal to do with( ) 68 the number of cavities in our teeth. It has been found that the presence of a chemical called fluorine in drinking water will slow down or stop tooth decay. The amount of (69) needed in the water to prevent tooth( ) 69 (70) is so small we can hardly imagine it, one( ) 70 part fluorine to one million parts water. Too much fluorine causes the enamel of the (71) to become mottled in appearance. ....( ) 71

72-74. The glider plane has no motor or propeller to thrust against the air and pull or push it forward, yet it can stay up in the (72) for hours at a time. Having( ) 72 no power, a (73) cannot climb through the air, or even( ) 73 fly on the level without the help of a flying start. A glider remains aloft or rises to somewhat higher elevations only because air currents (74) it.....( ) 74

**STOP!**

## TEST 2. VOCABULARY

kitten	wear	cat	girl	chair	dog
jump	down	ride	leap	see	look
run	stay	ask	race	fun	sit

---

1. baby      child      man      ball      cradle      rattle
2. stairs      upon      reach      steps      start      stays
3. cap      car      hat      head      face      hair
4. see      water      tell      her      do      look
5. noise      sound      beat      slide      rush      stop
6. jolly      berry      merry      spread      toy      gloomy
7. battle      baby      play      fight      talk      muddy
8. river      wash      stream      curve      steamer      deep
9. sack      seat      hold      bag      lift      box
10. beast      stew      animal      brave      giant      coward
11. parrot      bright      song      bird      green      gull
12. bucket      pull      deer      drink      handle      pail
13. bake      stove      dish      cook      fry      eat
14. liberty      flag      state      freedom      country      ruler
15. idea      date      perfect      thought      statue      dream
16. fix      tear      finish      mend      stir      feel
17. power      rain      move      steal      dust      strength
18. remain      few      stay      place      have      check
19. speak      sing      walk      say      peep      jump
20. tale      take      story      fish      plate      end
21. castle      oxen      queen      building      lake      moat
22. correct      answer      join      gather      right      nearly
23. polite      wise      pretty      happy      reply      courteous
24. feel      cry      strike      push      touch      run
25. quiet      slow      weak      quick      still      cover

26. elect	light	preach	wish	choose	build
27. maid	old	man	work	gown	girl
28. sure	certain	finally	sudden	usually	heal
29. ahead	below	before	between	above	alone
30. terror	liberty	fright	hatred	sympathy	animal
31. hardly	barely	surely	slowly	softly	easily
32. form	raise	solid	shape	away	grain
33. amaze	wander	vanish	astonish	collect	trap
34. conference	war	discussion	tax	conflict	speech
35. saintly	holy	weakly	weary	sorrow	trial
36. bread	flour	make	food	cake	butter
37. gain	delay	win	fresh	money	pair
38. shield	arm	shift	conflict	protect	desert
39. innocent	afraid	strange	guiltless	criminal	dull
40. demand	request	employ	forecast	suggest	receive
41. chase	find	give	catch	follow	jump
42. final	recent	last	early	begin	curtain
43. unworthy	uneasy	fair	useless	undeserving	shy
44. hearth	fireplace	listen	warmth	funeral	cabin
45. supply	suit	furnish	deny	carry	require
46. peace	part	scorn	fruit	calm	vegetable
47. transfer	ride	pierce	occur	choose	shift
48. dwelling	stage	roof	sword	house	garden
49. oblige	manage	erase	worry	favor	oppose
50. bough	bend	knot	blossom	bark	limb

**STOP!**

## TEST 3. ARITHMETIC FUNDAMENTALS

Add

$$\begin{array}{r} 4 \\ + 4 \\ \hline \end{array} \quad \begin{array}{r} 5 \\ + 7 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ + 4 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ + 7 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ + 5 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ + 6 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ + 9 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ + 8 \\ \hline \end{array}$$

$$\begin{array}{r} 40 \\ + 60 \\ \hline \end{array} \quad \begin{array}{r} 20 \\ + 56 \\ \hline \end{array} \quad \begin{array}{r} 25 \\ + 4 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ + 44 \\ \hline \end{array} \quad \begin{array}{r} 19 \\ + 65 \\ \hline \end{array} \quad \begin{array}{r} 86 \\ + 57 \\ \hline \end{array}$$

Subtract

$$\begin{array}{r} 2 \\ - 1 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 3 \\ - 2 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ - 6 \\ \hline \end{array} \quad \begin{array}{r} 13 \\ - 9 \\ \hline \end{array} \quad \begin{array}{r} 14 \\ - 6 \\ \hline \end{array} \quad \begin{array}{r} 15 \\ - 7 \\ \hline \end{array} \quad \begin{array}{r} 13 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} 38 \\ - 15 \\ \hline \end{array} \quad \begin{array}{r} 26 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 35 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 43 \\ - 6 \\ \hline \end{array} \quad \begin{array}{r} 56 \\ - 28 \\ \hline \end{array} \quad \begin{array}{r} 152 \\ - 83 \\ \hline \end{array}$$

Multiply

$$\begin{array}{r} 7 \\ \times 2 \\ \hline \end{array} \quad \begin{array}{r} 3 \\ \times 6 \\ \hline \end{array} \quad \begin{array}{r} 3 \\ \times 2 \\ \hline \end{array} \quad \begin{array}{r} 5 \\ \times 7 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ \times 8 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ \times 9 \\ \hline \end{array} \quad \begin{array}{r} 2 \\ \times 4 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 34 \\ \times 2 \\ \hline \end{array} \quad \begin{array}{r} 60 \\ \times 7 \\ \hline \end{array} \quad \begin{array}{r} 46 \\ \times 5 \\ \hline \end{array} \quad \begin{array}{r} \$6.17 \\ \times 4 \\ \hline \end{array} \quad \begin{array}{r} 984 \\ \times 6 \\ \hline \end{array} \quad \begin{array}{r} 48 \\ \times 90 \\ \hline \end{array}$$

Divide

One half of 10 is \_\_\_\_\_

 $9 \div 3 = \underline{\hspace{2cm}}$ 

$3 \overline{)24}$

$2 \overline{)4}$

$1 \overline{)5}$

$3 \overline{)12}$

$1 \overline{)10}$

$2 \overline{)16}$



Divide

$$5 \overline{)35}$$

$$9 \overline{)45}$$

$$8 \overline{)32}$$

$$9 \overline{)72}$$

$$8 \overline{)64}$$

$$6 \overline{)50}$$

$$2 \overline{)84}$$

$$3 \overline{)73}$$

$$6 \overline{)456}$$

$$3 \overline{)903}$$

$$7 \overline{)945}$$

$$9 \overline{)11.29}$$

$$31 \overline{)93}$$

Add

94

1

70

19

456

828

954

23

65

97

25

91

45

479

60

767

8

345

\$2.67

.89

8.35

5.00

$$\begin{array}{r} \frac{1}{5} \\ \frac{2}{5} \\ \hline \end{array}$$

$$\begin{array}{r} 2\frac{1}{3} \\ \frac{1}{3} \\ \hline \end{array}$$

$$\begin{array}{r} 5\frac{1}{2} \\ 4\frac{1}{2} \\ \hline \end{array}$$

Subtract

478

- 71

853

- 247

847

- 769

5000

- 354

\$20.00

- 19.47

Subtract

$$\begin{array}{r} \frac{5}{7} \\ - \frac{3}{7} \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ - \frac{1}{2} \\ \hline \end{array}$$

$$\begin{array}{r} 3\frac{2}{3} \\ - 1\frac{1}{3} \\ \hline \end{array}$$

Multiply

$$\begin{array}{r} 47 \\ \times 81 \\ \hline \end{array}$$

$$\begin{array}{r} 308 \\ \times 73 \\ \hline \end{array}$$

$$\begin{array}{r} 467 \\ \times 19 \\ \hline \end{array}$$

$$\begin{array}{r} 489 \\ \times 208 \\ \hline \end{array}$$

$$\begin{array}{r} 573 \\ \times 786 \\ \hline \end{array}$$

Find

$$\frac{1}{4} \text{ of } 36 =$$

$$\frac{3}{4} \text{ of } 16 =$$

$$\frac{5}{6} \text{ of } 18 =$$

Divide

$$43 \overline{)296}$$

$$63 \overline{)2970}$$

$$69 \overline{)8725}$$

**STOP!**

## TEST 4. ARITHMETIC PROBLEMS

1. I bought some popcorn for 10 cents, an apple for 4 cents, and some candy for 3 cents. All the things together cost how much? 1  
  

cents
2. We had 10 little chickens and sold 4 of them. We had how many chickens left? 2  
  

chickens
3. My brother has 8 baby rabbits. He is going to give me half of them. How many shall I have? 3  
  

rabbits
4. I have 4 cents and want a book that costs 15 cents. I need how many more cents to buy the book? 4  
  

cents
5. 3 children are coming to my party. I am going to give each one of them 4 pieces of candy. I must get how many pieces for all of them? 5  
  

pieces
6. My mother gave me 35 cents. I spent 10 cents for a sandwich and 10 cents for a ride on the car. How many cents did I have left? 6  
  

cents
7. I need 6 cups of milk to make some custard. How many cups do I need for 5 times as much custard? 7  
  

cups
8. A train went 45 miles the first hour and 63 miles the second hour. How far did it go in the 2 hours? 8  
  

miles

9. There are 12 children in our class who each drink 5 bottles of milk a week. How many bottles are needed for all the children each week?  <sub>9</sub>  
bottles
10. Monday morning our teacher received 3 packages of paper. She said that in each package there were 480 sheets. How many sheets of paper did she receive?  <sub>10</sub>  
sheets
11. A farmer is going to plant 260 trees. He has already planted 135 of the trees. How many more has he still to plant?  <sub>11</sub>  
trees
12. Martin's mother gave him 75¢ for lunches for his brother, his sister, and himself. She told him to divide the money equally. How much could each child spend for lunch?  <sub>¢ 12</sub>
13. If we average 25 miles an hour on our auto trip, how far can we go in 9 hours?  <sub>13</sub>  
miles
14. Tickets to our play are 10 cents each. If 15 people buy tickets, how much money shall we take in?  <sub>\$ 14</sub>
15. Tom has 246 marbles. He filled 6 bags equally. How many marbles will he have in each bag?  <sub>15</sub>  
marbles

16. The principal said that  $\frac{1}{8}$  of the fourth-grade children were late today because it rained. If there are 32 children in the fourth grade, how many were late?
- 
- 16  
children

17. Our club had \$1.55 in the treasury. We spent 65 cents for a party we gave. How much money did we have left?
- 
- ¢ 17

18. At the beginning of the term I had \$4.05 in the school bank. I now have \$6.15. How much did I put in this term?
- 
- \$ 18

19. If balloons are 2 for 5¢, how many balloons can I buy for 25 cents?
- 
- 19  
balloons

20. At the grocery store Fred bought half a pound of meat for 23 cents, six apples for 18 cents, and a jar of peanut butter for 15 cents. How much change should he get from the dollar bill he gave the storekeeper?
- 
- ¢ 20

21. I bought 4 pencils for 8 cents each and gave the clerk half a dollar. How much change did I get back?
- 
- ¢ 21

22. Mother bought some groceries that cost \$5.64. She paid for them with a 10-dollar bill. How much change should she receive?
- 
- \$ 22



23. The fourth-grade class had a party. Each child brought 15¢ for expenses. If there were 39 in the class, how much money was brought all together? \$ 23

24. There are 224 pupils who are going to the museum. Each bus holds 32 pupils. How many busses will be needed?  24  
busses

25. The boys spent \$14.76 for material for 4 picnic tables. What was the cost of the material for each table? \$ 25

**STOP!**

## TEST 5. LANGUAGE USAGE

- a. My brother s \_\_\_\_\_ he would hurry.
- b. I want a piece \_\_\_\_\_ bread.
- c. She \_\_\_\_\_ t coming to my party.
- 
1. School is out. It is time to \_\_\_\_\_ home.
2. I looked down from a tall building yesterday and s \_\_\_\_\_ the people on the street.
3. Last week my aunt g \_\_\_\_\_ me a dime.
4. Please hang your coat \_\_\_\_\_ the closet.
5. My peach is much h \_\_\_\_\_ than yours.
6. Three people w \_\_\_\_\_ lost in the storm.
7. "Allen c \_\_\_\_\_ home from school early today," said his mother, "because he wasn't feeling well."
8. Yesterday my fifth-grade boys d \_\_\_\_\_ their share of the work.
9. "Are there apples in the basket?" "No, there aren't \_\_\_\_\_ apples in it."
10. The flower smells sw \_\_\_\_\_.
11. When the race was over, Peter said, "I r \_\_\_\_\_ faster this morning. That's how I won."
12. I saw you with Tom again yesterday. I always see you and h \_\_\_\_\_ together.
13. The baby has gr \_\_\_\_\_ two inches in the last three months.

14. Ted hurt h self when he fell from his bicycle.
15. Please, \_\_\_\_\_ I have this chair?
16. Ben couldn't go with us because he wasn't feeling \_\_\_\_\_.
17. My aunt invited me for a week, but I st only two days.
18. If I had been in your place, I would \_\_\_\_\_ said, "No."
19. Mother said to Blanche, "I br you a very nice present."
20. Every boy should take off \_\_\_\_\_ hat.
21. When we have our picture taken, you will s in the chair and I shall stand behind you.
22. "Has your cousin left this city?" "Yes, he has \_\_\_\_\_ back to the farm."
23. They \_\_\_\_\_ t going to play any longer because it is too dark to see.
24. A pint is smaller \_\_\_\_\_ a quart.
25. He \_\_\_\_\_ t going to sell his pony now because he wants to keep it another year.
26. There is the child w was lost.
27. "Does he give you a ride often?" "He has g me a ride every few days lately."
28. My father seldom goes to the movies. He says he \_\_\_\_\_ care to see them often.
29. Clara, w you at Alice's birthday party?

30. We learn new things in school every day. Today Miss Brown \_\_\_\_\_ us how to do long division.
31. Mary was hurt on the way to school. When the teacher asked who was hurt, Mary said, "It was \_\_\_\_\_."
32. You look tired; why don't you l \_\_\_\_\_ down on this bed and rest?
33. The girls my sister plays with are much taller than \_\_\_\_\_.
34. You drive too fast. I am afraid you will run over someone. Please drive more sl \_\_\_\_\_.
35. The hen was neither white \_\_\_\_\_ black.
36. She has just w \_\_\_\_\_ a letter to her friend.
37. Jane plays the piano, but she has never t \_\_\_\_\_ violin lessons.
38. That is a neat seam. You sew very n \_\_\_\_\_.

**STOP!**

## TEST 6. SPELLING

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_
11. \_\_\_\_\_
12. \_\_\_\_\_
13. \_\_\_\_\_
14. \_\_\_\_\_
15. \_\_\_\_\_
16. \_\_\_\_\_
17. \_\_\_\_\_
18. \_\_\_\_\_
19. \_\_\_\_\_
20. \_\_\_\_\_
21. \_\_\_\_\_
22. \_\_\_\_\_
23. \_\_\_\_\_
24. \_\_\_\_\_
25. \_\_\_\_\_
26. \_\_\_\_\_
27. \_\_\_\_\_
28. \_\_\_\_\_
29. \_\_\_\_\_
30. \_\_\_\_\_



31. \_\_\_\_\_ 36. \_\_\_\_\_

32. \_\_\_\_\_ 37. \_\_\_\_\_

33. \_\_\_\_\_ 38. \_\_\_\_\_

34. \_\_\_\_\_ 39. \_\_\_\_\_

35. \_\_\_\_\_ 40. \_\_\_\_\_

Name.....Date.....19..

Teacher.....Grade.....School.....

City.....County.....State.....

INDIVIDUAL PROFILE CHART

METROPOLITAN ACHIEVEMENT TESTS: ELEMENTARY BATTERY

★	Test 1 READ- ING	Test 2 VOCAB- ULARY	Test 3 ARITH. FUND.	Test 4 ARITH. PROB.	Test 5 LANG. USAGE	Test 6 SPELL- ING	AVE. ACH'T.	★	†
12-3								8.5	
12-2									
12-1									
12-0									
11-11									
11-10								8.0	
11-9									
11-8									
11-7									
11-6									
11-5								7.5	
11-4									
11-3									
11-2									
11-1									
11-0								7.0	
10-11									
10-10									
10-9									
10-8									
10-7								6.5	
10-6									
10-5									
10-4									
10-3									
10-2								6.0	
10-1									
10-0									
9-11									
9-10									
9-9								5.5	
9-8									
9-7									
9-6									
9-5									
9-4								5.0	
9-3									
9-2									
9-1									
9-0									
8-11								4.5	
8-10									
8-9									
8-8									
8-7									
8-6								4.0	
8-5									
8-4									
8-3									
8-2									
8-1								3.5	
8-0									
7-11									
7-10									
7-9									
7-8								3.0	
7-7									
7-6									
7-5									
7-4									
7-3								2.5	
7-2									
7-1									
7-0									
6-11									
6-10								2.0	
6-9									
6-8									
6-7									
6-6									
6-5								1.5	

★ These two scales are independent. Only one should be used at one time.  
In plotting this chart, put an X in the box above the scale which is to be used.  
† An additional scale is provided here in order to make it possible to plot the  
chart in terms of norms other than those of age or grade.

The Profile Chart is designed to furnish a graphic picture of the achievement of an individual pupil as revealed by his test scores. In plotting the equivalents (grade, age, or other type), open the test booklet and lay it flat so that both the title page and the Profile Chart are in view. Plot the equivalent of each test score on the proper stave and join these points to make the profile.

# METROPOLITAN ACHIEVEMENT TESTS

## INTERMEDIATE BATTERY — COMPLETE: FORM R

BY RICHARD D. ALLEN, PH.D.  
 HAROLD H. BIXLER, PH.D.  
 WILLIAM L. CONNOR, M.A.  
 AND FREDERICK B. GRAHAM, PD.M.

Inter.  
 Compl.  
**R**

Name..... Boy..... Girl.....  
 Teacher..... Grade..... School.....  
 City..... County..... State.....

TEST	STAND- ARD SCORE	GRADE EQUIVA- LENT	
1. Reading			
2. Vocabulary			
Average Reading	<del>X</del>	*	*
3. Arithmetic Fundamentals			
4. Arithmetic Problems			
Average Arithmetic	<del>X</del>	*	*
5. English I. Language Usage II. Punct. and Cap. Total English	No separate score for each part.		
6. Literature			
7. Social Studies: Hist.			
8. Social Studies: Geog.			
Average Social Studies	<del>X</del>	*	*
9. Science			
10. Spelling			
Average Achievement			

.....  
 Year      Month      Day  
*Date of Testing*

.....  
 Year      Month      Day  
*Date of Birth*

Age ..... yrs. .... mos.

\* Do not include when figuring average achievement.

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## TEST 1. READING

**DIRECTIONS.** In each paragraph a blank line means that a word has been left out. Read each paragraph. Then think of the word that should be in each blank. Write the word *in the parentheses at the side of the page*. You should get the answer from the paragraph itself.

**SAMPLE.** Dick, Tom, and Fred are brothers. The names ( ) *a*  
of Dick's brothers are (a) and (b) . . . . . ( ) *b*

1. In winter we wear coats. Our (1) keep us ( ) 1  
warm. . . . .

2-3. Billie has a brown dog. His (2) has a white ( ) 2  
spot on his back, and so Billie (3) him Spotty. . . . . ( ) 3

4. History is the story of what has happened. To  
learn about the past of the United States, we read its  
(4) . . . . . ( ) 4

5-9. When you read a line of print, your eyes move ( ) 5  
across the page in jumps. If you are a good (5), ( ) 6  
your (6) make three or four jumps to a line. If you ( ) 7  
are a (7) reader, your eyes may make as many as ( ) 8  
eight or ten (8) to a (9) . . . . . ( ) 9

10-14. The two Wright brothers read every book  
and article they could find on the theory of flying. They  
studied the movements of hawks and other great birds ( ) 10  
as these birds soared high up in the (10). After months  
of study and hard work they built a (11) which they ( ) 11  
thought would (12). It was made of wood and cloth ( ) 12  
and weighed, with one brother in it, only 750 pounds.  
At Kittyhawk, North Carolina, in 1903, they gave the  
new plane a trial, with one brother as pilot. It rose  
from the (13) and flew through the air for several ( ) 13  
seconds. This was the first time that a motor-driven,  
heavier-than-air machine carried a (14) through the air. ( ) 14

15-18. The most interesting of all the Atlantic fish-  
ing ports is Gloucester. For three hundred years  
fishermen have sailed out of (15) to the fishing grounds ( ) 15  
which extend from Cape Hatteras to Greenland. The  
life of a (16) is not an easy one, for many men sail out ( ) 16  
from this port never to (17). Each year the people ( ) 17  
of the village hold a memorial service for these heroes by  
spreading flowers over the (18) of the harbor. . . . . ( ) 18

19-20. During cold weather, a house is continually  
losing heat. Heat escapes through the walls, cracks  
around windows, and opened doors. To keep the house ( ) 19  
comfortable, the furnaces and stoves must supply  
enough (19) to take the place of that which is (20) . . . ( ) 20

21-25. Ever since man has lived on the earth, he has had some form of wealth. He always has had things which are useful and valuable to him. Not everything which is useful is wealth. We could not live without ( ) 21 air, but (21) is not wealth. It is not (22) because there is an unlimited supply of it. You can get all you ( ) 22 want of it without cost. If you own a spring, you can get all the water you want without (23). In this ( ) 23 case (24) is not wealth. But if you get water in your ( ) 24 house through pipes, you have to (25) for it. In this case water is wealth. . . . . ( ) 25

26-29. Science is finding out that the water we drink affects our lives far more than we know. Now we are told that the (26) we drink has a great deal to do with ( ) 26 the number of cavities in our teeth. It has been found that the presence of a chemical called fluorine in drinking water will slow down or stop tooth decay. The amount of (27) needed in the water to prevent tooth ( ) 27 (28) is so small we can hardly imagine it, one part ( ) 28 fluorine to one million parts water. Too much fluorine causes the enamel of the (29) to become mottled in appearance. . . . . ( ) 29

30-32. Generally speaking, the best watchdogs are the (30) with upright ears. They seem to be always ( ) 30 alert and they (31) the slightest sound. The term ( ) 31 "watchdog" seems to be a poor name, for a good watchdog is really a "listen-dog." Almost always, it (32) before it sees. . . . . ( ) 32

33-36. The common song of the black-capped chickadee is a call of two sweet, clear, whistled notes, the ( ) 33 second note being lower than the (33). If you can whistle high enough, you can (34) this call. Often ( ) 34 you can get the birds to (35) your call. The chickadee also has several other calls. One of these calls ( ) 35 sounds like "chickadee," and is the one from which this bird gets its (36) . . . . . ( ) 36

37-40. Early man kept a record of his counting by making cuts on a tally stick or by making a pile of pebbles. The stick served best when he wanted a permanent record while the (37) could be used over ( ) 37 and over again. From the loose pile of pebbles in time man developed the counting frame. At first this was just a series of grooves in a flat surface, in which he lined up the (38). Later it became a series of upright ( ) 38 sticks on which beads or stones with holes in them could be placed. Finally the ends of the (39) were joined ( ) 39 together to make the counting (40) as we know it today. . . . . ( ) 40



**DIRECTIONS.** Read each paragraph. Then read the questions below it. Write the answer to each question *in the parentheses after it*. You may read the paragraph again if you wish to. Each question can be answered by one word or, at most, a few words. You should get the answer to each question from the paragraph itself.

The fur of the mink is popular both because of its quality and its rarity. Raising minks for their furs is called mink ranching. The pelts from ranch minks are now considered better than those from wild minks. Because minks fight with each other, they are kept in separate small pens. These have wire floors and tops and are raised off the ground. The minks are fed mostly raw meat or fish. The young minks, called kits, are born in spring, sometimes as many as ten in a litter. In the early winter, they are killed and their skins or pelts are prepared for use in fur coats and other articles.

41. Why are several minks not kept in the same pen? ( ) 41
42. What is another name for the skin of a fur-bearing animal? ( ) 42
43. What two foods are the minks most commonly fed? ( ) 43
44. Of what is the floor of the mink's pen made? ( ) 44
45. When are the minks killed for their furs? ( ) 45
46. What is another name for the baby minks? ( ) 46
47. Write in the answer space the letter which appears in front of the best title for this paragraph —  
 a. *Wild Minks*    b. *Making Mink Coats*  
 c. *Raising Minks for Fur*    d. *Feeding the Minks* ( ) 47

Bell, inventor of the telephone, was born in Scotland. He went to Canada when he was twenty-three years old, and two years later he came to the United States, where he became a professor at Boston University. The telephone was born in Boston on June 2, 1875, in a little electrical shop on Court Street. This was three years after Bell came to the United States. In 1876, when Bell was twenty-nine years old he exhibited his telephone at the Philadelphia Exposition. Later that year and early the following year, he and a helper went about the country giving lectures and showing how the telephone worked. People were very much interested, but considered the telephone as a toy rather than anything useful. Not until May, 1877, was anyone willing to pay for a telephone.

48. In what country was Bell born? ( ) 48
49. How old was Bell when he came to the United States? ( ) 49
50. In what city did Bell do his most famous work? ( ) 50
51. In what year was Bell at the Philadelphia Exposition? ( ) 51
52. What did the telephone seem like to most people? ( ) 52
53. Write in the answer space the letter which appears in front of the best title for this paragraph —  
 a. *Early Telephones*    b. *Bell, Inventor of the Telephone*  
 c. *The Usefulness of the Telephone*  
 d. *The Philadelphia Exposition* ( ) 53

Few professional photographers and fewer amateurs are skilled in the art of photographic negative etching. This is the art of scraping selected areas of the film lightly, thus reducing the thickness and opacity of the negative at these points. When a photograph is made from the etched negative more light will pass through the thinned areas, thus making the corresponding areas in the photographic print darker. Failure in this difficult art, more often than not, is due to the use of the wrong kind of etching knife. A sharp blade which holds its sharpness is needed. A thin, flexible blade is not as satisfactory as a thicker, more rigid one. A first-class etching knife costs several dollars, but a poor one will cost more in the long run because of the spoiled negatives.

54. Is photographic etching an easily mastered art?... ( ) 54
55. What kind of tool is used?... ( ) 55
56. Which of the following words is used to describe this tool — dull, round, sharp, pointed?... ( ) 56
57. Does the etching process lighten or darken the final picture?... ( ) 57
58. What makes a cheap etching tool more expensive in the long run?... ( ) 58
59. Write in the answer space the letter which appears in front of the best title for this paragraph — a. *How to Make a Picture*  
b. *Photographic Etching, a Difficult Art*  
c. *How to Thin a Negative* d. *Etching Knives*..... ( ) 59

One day a man, hiking in the fields, happened upon a butterfly struggling to free itself from its cocoon. He watched for a time, feeling sorry for the weak and helpless creature, struggling so hard. Finally he took his sharp knife from his pocket and quickly cut open the cocoon, allowing the butterfly to escape. To his amazement the poor little creature fluttered its weak wings for a time but soon entirely gave up trying to fly. The struggle to escape from the cocoon was nature's way of preparing the butterfly for the much more difficult tasks that lay ahead. Because it was denied this experience, the butterfly was unable to fly.

60. What word tells you that seeing the butterfly was accidental?... ( ) 60
61. What word tells you that the hiker was surprised at the result of his kindness?... ( ) 61
62. The butterfly's struggle for escape is: harmful, hopeless, useless, necessary..... ( ) 62
63. Write in the answer space the letter in front of the sentence which best tells what lesson this story teaches —  
a. *One should not give up without a struggle.*  
b. *It is healthy to be out-of-doors.* c. *Greatness knows itself.*  
d. *Overcoming small difficulties gives strength to meet greater ones.*..... ( ) 63

**STOP!**

## TEST 2. VOCABULARY

**DIRECTIONS.** In the parentheses after each question write the number of the word that makes the sentence most nearly true.

**SAMPLE.** *Big* means the same as — 1 bad 2 pretty 3 large 4 tiny ( )

1. A *friend* is one we — 1 strike 2 throw 3 love 4 fear ... ( ) 1
2. A *noise* is a — 1 smell 2 sound 3 joke 4 song ..... ( ) 2
3. To be *safe* is to be — 1 dangerous 2 sad 3 sick 4 secure ( ) 3
4. I *finish* means I — 1 hurry 2 search 3 forget 4 complete ( ) 4
5. A *mile* is a — 1 race 2 law 3 measure 4 drawing ..... ( ) 5
6. *Human* refers to — 1 houses 2 promises 3 monkeys 4 man ( ) 6
7. To *discover* means to — 1 know 2 find 3 close 4 consider ( ) 7
8. *Almost* means — 1 sometimes 2 never 3 always 4 nearly ( ) 8
9. *Fear* is the same as — 1 accident 2 noise 3 terror 4 dark ( ) 9
10. *Huge* best describes an — 1 apple 2 ant 3 elephant 4 elf ( ) 10
11. *Same* means — 1 different 2 even 3 like 4 small ..... ( ) 11
12. *Feeling* means — 1 crying 2 striking 3 pushing 4 touching ( ) 12
13. *Pardon* means — 1 freedom 2 forgiveness 3 privilege 4 guilt ( ) 13
14. *Hardly* means — 1 barely 2 surely 3 slowly 4 softly ... ( ) 14
15. To *remember* is to — 1 write 2 recite 3 resist 4 recall .. ( ) 15
16. She *replies* means she — 1 complains 2 demands 3 fills 4 answers ( ) 16
17. A *mistake* is — 1 an error 2 a crime 3 a haze 4 a disaster ( ) 17
18. *Terror* is the same as — 1 liberty 2 fright 3 hatred 4 sympathy ( ) 18
19. To *shield* means to — 1 arm 2 shift 3 conflict 4 protect ( ) 19
20. *Sorrow* means — 1 anxiety 2 refinement 3 pleasure 4 grief ( ) 20
21. To *amaze* means to — 1 wander 2 vanish 3 astonish 4 collect ( ) 21
22. To *form* means to — 1 practice 2 leave 3 express 4 shape ( ) 22
23. A *companion* is — 1 an agreement 2 a treaty 3 a comrade 4 a gift ( ) 23
24. To *transfer* means to — 1 ride 2 pierce 3 occur 4 shift .. ( ) 24
25. *Innocent* means — 1 afraid 2 strange 3 guiltless 4 criminal ( ) 25
26. *Attempt* means — 1 go 2 reach 3 try 4 accomplish ..... ( ) 26
27. *Life* means — 1 end 2 strength 3 hope 4 existence ... ( ) 27
28. *Reckless* means — 1 heartless 2 careless 3 fearful 4 useless ( ) 28

29. *Information* means — 1 correction 2 hatred 3 hospital 4 knowledge ( ) 29
30. To *manage* means to — 1 teach 2 spoil 3 follow 4 direct ( ) 30
31. To be *patient* is to be — 1 ill 2 evident 3 uncomplaining 4 rude ( ) 31
32. To *arouse* means to — 1 ascend 2 annoy 3 awaken 4 arrive ( ) 32
33. A *conference* is a — 1 federation 2 discussion 3 conflict 4 speech ( ) 33
34. To *change* is to — 1 happen 2 risk 3 alter 4 bite ..... ( ) 34
35. *Ownership* means — 1 offer 2 possession 3 right 4 partnership ( ) 35
36. He *grants* means he — 1 withdraws 2 offends 3 grasps 4 gives ( ) 36
37. To *proceed* means to — 1 prove 2 follow 3 advance 4 lead ( ) 37
38. To *accustom* is to — 1 harmonize 2 familiarize 3 collect 4 affront ( ) 38
39. To *oppose* means to — 1 crush 2 suppose 3 resist 4 rest ( ) 39
40. *Seldom* means — 1 frequently 2 now 3 surely 4 rarely ( ) 40
41. To *survey* means to — 1 sway 2 overspread 3 drive 4 inspect ( ) 41
42. To be *serious* is to be — 1 earnest 2 smart 3 lazy 4 intelligent ( ) 42
43. To *relieve* means to — 1 ease 2 abandon 3 remedy 4 depart ( ) 43
44. A *mountain* is part of — 1 a city 2 the earth 3 the sea 4 a hill ( ) 44
45. *Unconcern* means — 1 justice 2 evidence 3 interest 4 indifference ( ) 45
46. To *oblige* is to — 1 manage 2 erase 3 favor 4 oppose.. ( ) 46
47. *Influence* means — 1 disease 2 grippe 3 authority 4 wealth ( ) 47
48. *Unworthy* means — 1 uneasy 2 unfair 3 useless 4 undeserving ( ) 48
49. *Inhabit* means — 1 invade 2 instill 3 dwell 4 discover.. ( ) 49
50. *Solitary* means — 1 alone 2 reliable 3 sullen 4 numerous ( ) 50
51. To *provoke* is to — 1 ridicule 2 call 3 encourage 4 irritate ( ) 51
52. *Intention* means — 1 purpose 2 indifference 3 consideration  
4 discovery..... ( ) 52
53. To *long for* means to — 1 extend 2 crave 3 look 4 envy ( ) 53
54. *Data* mean — 1 fruits 2 cases 3 occasions 4 facts ..... ( ) 54
55. A *dream* is a — 1 sleep 2 plan 3 fear 4 fancy ..... ( ) 55

**STOP!**



# TEST 3. ARITHMETIC FUNDAMENTALS

DIRECTIONS. Work each example and write the answer in the box near it. If you have to copy your answer, be sure to copy it correctly. *Reduce all improper fractions to mixed numbers, and all fractions to lowest terms.*

1. *Add*  $\begin{array}{r} 8 \\ 5 \end{array}$

2. *Add*  $\begin{array}{r} 8 \\ 0 \end{array}$

3. *Add*  $\begin{array}{r} 29 \\ 6 \end{array}$

4. *Add*  $\begin{array}{r} 9 \\ 7 \\ 3 \\ 0 \\ 6 \\ 7 \\ 5 \\ 8 \end{array}$

5. *Add*  $\begin{array}{r} \$2499.29 \\ .82 \\ 737.95 \\ 7.87 \\ 66.44 \end{array}$

6. *Subtract*  $\begin{array}{r} 9 \\ 4 \end{array}$

7. *Subtract*  $\begin{array}{r} 11 \\ 4 \end{array}$

8. *Subtract*  $\begin{array}{r} 87 \\ 24 \end{array}$

9. *Subtract*  $\begin{array}{r} 704 \\ 270 \end{array}$

10. *Subtract*  $\begin{array}{r} 771315 \\ 166428 \end{array}$

11. *Multiply*  $\begin{array}{r} 2 \\ 8 \end{array}$

12. *Multiply*  $\begin{array}{r} 521 \\ 4 \end{array}$

13. *Multiply*  $\begin{array}{r} 847 \\ 9 \end{array}$

14. *Multiply*  $\begin{array}{r} 407 \\ 709 \end{array}$

15. *Multiply*  $\begin{array}{r} 5627 \\ 94 \end{array}$

16.  $32 \div 4 =$

17.  $5)37$

18.  $2)426$

19.  $7)7947$



20.

$$\begin{array}{r} \boxed{\phantom{000}} \\ 32 \overline{) 704} \end{array}$$

21.

$$\begin{array}{r} \boxed{\phantom{000}} \\ 49 \overline{) 24856} \end{array}$$

22.

$$\frac{6}{8} =$$

$$\frac{\phantom{00}}{4}$$

23.

$$\frac{1}{8} + \frac{1}{8} =$$

$$\boxed{\phantom{000}}$$

24. Add

$$\frac{2}{3} + \frac{1}{6}$$

$$\boxed{\phantom{000}}$$

25. Add

$$5\frac{3}{8} + 2\frac{7}{8}$$

$$\boxed{\phantom{000}}$$

26.

$$\frac{1}{2} + \frac{2}{5} + \frac{3}{4} =$$

$$\boxed{\phantom{000}}$$

27. Subtract

$$\frac{1}{2} - \frac{1}{8}$$

$$\boxed{\phantom{000}}$$

28. Subtract

$$7\frac{7}{8} - 3\frac{3}{8}$$

$$\boxed{\phantom{000}}$$

29. Subtract

$$3\frac{7}{8} - \frac{1}{2}$$

$$\boxed{\phantom{000}}$$

30. Subtract

$$9\frac{1}{2} - 5\frac{7}{8}$$

$$\boxed{\phantom{000}}$$

31. Subtract

$$4\frac{1}{4} - \frac{2}{3}$$

$$\boxed{\phantom{000}}$$

32.

$$\frac{1}{5} \text{ of } 205 =$$

$$\boxed{\phantom{000}}$$

33.

$$\frac{3}{5} \times \frac{5}{12} =$$

$$\boxed{\phantom{000}}$$

34.

$$12 \times 2\frac{3}{4} =$$

$$\boxed{\phantom{000}}$$

35.  $6\frac{1}{4} \times 8 \times 2\frac{2}{5} =$

41.  $\$78 - \$3.11 =$  \$

36.  $12 \div \frac{3}{4} =$

42.  $100 \times .066 =$

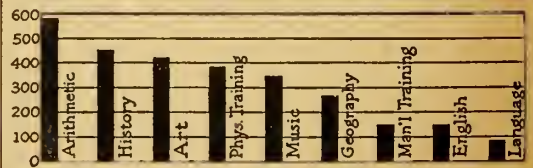
37.  $\frac{2}{3} \div \frac{5}{6} =$

43.  $.24 \times 52.4 =$

38.  $\frac{3}{5} \div 12 =$

39.  $5\frac{1}{3} \div 1\frac{1}{6} =$

SCHOOL SUBJECTS BEST LIKED IN ONE CITY



44. Which subject was liked best?..

45. About how many pupils liked physical training best?

40. Add

$$\begin{array}{r} .241 \\ 85.006 \\ 235.054 \\ .745 \\ 26.012 \\ 9.327 \\ \hline \end{array}$$

46.

$$\begin{array}{r} \boxed{\phantom{0000}} \\ 6 \overline{) 42} \end{array}$$

47.

$$\begin{array}{r} \boxed{\phantom{0000}} \\ .004 \overline{) .0368} \end{array}$$

48.

$$\begin{array}{r} \boxed{\phantom{0000}} \\ 1.26 \overline{) 88.2} \end{array}$$

49.

$$1 \text{ ton} = \boxed{\phantom{000}} \text{ lb.}$$

50.

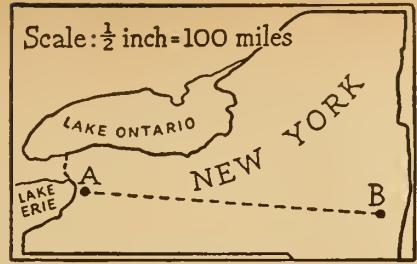
$$2 \text{ yr. } 9 \text{ mo.} = \boxed{\phantom{000}} \text{ yr.}$$

51.

$$3 \text{ sq. yd.} = \boxed{\phantom{000}} \text{ sq. ft.}$$

52. Add

$$\begin{array}{r} 2 \text{ ft. } 4 \text{ in.} \\ 3 \text{ ft. } 8 \text{ in.} \\ 4 \text{ ft. } 6 \text{ in.} \\ \hline \boxed{\phantom{000}} \end{array}$$



53. The distance on above map from *A* to *B* is  $1\frac{1}{2}$  in. According to the given scale what is distance in miles?  $\boxed{\phantom{000}}$

54.

$$60\% \text{ of } 24 = \boxed{\phantom{000}}$$

55.

$$5\% \text{ of } 300 = \boxed{\phantom{000}}$$

56.

$$37\frac{1}{2}\% \text{ of } 24 = \boxed{\phantom{000}}$$

**STOP!**

## TEST 4. ARITHMETIC PROBLEMS

**DIRECTIONS.** Work each problem and write the answer in the box after the problem. Do your work in the margin at the right of the page.

1. There were 7 visitors at school on Monday, 5 on Tuesday, 3 on Wednesday, and 9 on Thursday. How many visitors came during the week?.....  1
  
2. In our room there are 14 erasers on the front board and 9 erasers on the side board. How many are there in the room?.....  2
  
3. There were 19 books on the teacher's desk. She asked me to put 13 in the closet. How many were left on her desk?.....  3
  
4. Martin's mother gave him 75¢ for lunches for his brother, his sister, and himself. She told him to divide the money equally. How much could each child spend for lunch?.....  ¢ 4
  
5. Monday morning our teacher received 3 packages of paper. She said that in each package there were 480 sheets. How many sheets of paper did she receive?.....  5
  
6. At the beginning of the term I had \$4.05 in the school bank. I now have \$6.15. How much did I put in this term?.....  \$ 6
  
7. Arthur paid a debt of \$7.82 with a 10-dollar bill. How much change should he receive?.....  \$ 7
  
8. There are 224 pupils going to the museum. Each bus holds 32 pupils. How many busses will be needed?.....  8
  
9. The principal said that  $\frac{1}{8}$  of the fourth-grade children were absent today because it rained. If there are 32 children in the fourth grade, how many were absent?.....  9
  
10. If ice-cream cones are 10 for 7¢, what must we pay for 100 cones?.....  ¢ 10

11. Each of the 78 fifth-grade pupils will go to the school picnic. It will cost  $37\text{¢}$  for each pupil. How much is that in all?..... \$ 11
12. Mrs. Doyle bought two chickens for dinner. One chicken weighed  $3\frac{1}{2}$  pounds and the other  $2\frac{3}{4}$  pounds. How many pounds of chicken did she buy in all?..... lb. 12
13. My mother bought a gallon can of maple syrup, which she put into pint jars. How many pint jars did she use?.....  13
14. Mr. Jones drove his car 525 miles and bought 35 gallons of gasoline. How many miles did he travel on a gallon of gasoline? mi. 14
15. Emil's father got 20 baskets of berries. He said he would give a fourth of them to his brother and a fourth to a neighbor and keep the rest. How many baskets was he going to keep?.....  15
16. Alfred wants a tennis racket that costs \$5.85, a tennis net that costs \$6.75, and 4 balls that cost  $45\text{¢}$  each. What did the whole tennis outfit cost?..... \$ 16
17. There are 19 boys in our club. We made a radio that cost \$23.18. If we share the cost equally, how much should each boy pay?.. \$ 17
18. Rose had a piece of ribbon  $3\frac{7}{8}$  yards long. She had  $1\frac{1}{4}$  yards left after making bows. How many yards did she use for the bows? yd. 18
19. Mr. Lane bought a new flagpole for his front yard. It is  $28\frac{7}{8}$  feet long. If he puts it  $4\frac{1}{2}$  feet into the ground, how many feet of the pole will be above ground?..... ft. 19
20. Ned bought  $\frac{1}{2}$  dozen roses for \$1.68. At that price what did one rose cost him?.... ¢ 20
21. Mr. Nelson bought a table for \$12.75. He paid \$1.50 to have it carted to his shop. He spent \$1.69 to repaint it. He sold it for \$20.00. How much did he gain on it?.. \$ 21
22. Nancy had the following marks in her mid-term tests: 92, 68, 84, 74, and 100. What was her average mark?.....  22



23. If a map is drawn to a scale of 100 miles to  $\frac{1}{4}$  inch, what distance will be represented by a line  $1\frac{1}{2}$  inches long? ..... mi. 23
24. My father is paid twice a month. If each check is \$75, how much does he get a year? \$ 24
25. Sol earns 40¢ an hour. Yesterday he worked from 8:30 to 11:00 and from 2:30 to 3:30. How much did he earn?... \$ 25
26. Our class bought a box of 2 dozen candy bars for 95¢ and sold the bars for 5¢ each. How much did we make on a box? ..... ¢ 26
27. How much material should Louise buy for 6 towels, each of which is to be  $\frac{7}{8}$  yard long? ..... yd. 27
28. Susan has  $3\frac{1}{2}$  yards of ribbon that she wants to cut into  $\frac{1}{4}$ -yard lengths. How many lengths can she cut? .....  28
29. Ruth needs 200 ice-cream cones for the church fair. If a quart of ice cream fills 10 cones, how many gallons of ice cream should she order? ..... gal. 29
30. Bertha has a 6-yard piece of lace. She gave  $1\frac{3}{4}$  yards to her sister for a dress and used  $\frac{7}{8}$  of a yard on her own dress. How much did she have left? ..... yd. 30
31. The speedometer showed 2014.9 miles when we started on our trip and 2030.8 when we finished. How many miles did we travel? mi. 31
32. On different days last week, Rosa's sister worked  $5\frac{1}{2}$  hours, 8 hours, and  $6\frac{3}{4}$  hours. If she was paid 48¢ an hour, how much did she receive for her work last week? . . . \$ 32
33. Our motorboat ran a distance of 19.8 miles in 1.2 hours. Find its rate of speed per hour. mi. 33

**STOP!**

## TEST 5. ENGLISH: PART I – LANGUAGE USAGE

**DIRECTIONS.** In each sentence *one* word is left out for each blank line. Think of the *one* word that should be written on the blank line to make the sentence correct and *sensible*. Write the word in the parentheses after the sentence. Read the whole sentence before you write the word. (Sometimes the first letter of the word you are to use is given.) *Read the sentence again* after you have written the word, to be sure that it is correct and sensible.

SAMPLES. John says he *d*—— like to lose a game . . . . .(*d* )  
 Mary hasn't —— more paper left for her lessons.( )

1. "Please *l*— me go," said the little boy.....(*l*) 1
2. Tom cannot feed *h*—*self*, although he is five years old...(*h*) 2
3. "Allen *c*— home from school early today," said his mother, "because he wasn't feeling well.".....(*c*) 3
4. Last week my fifth-grade boys *d*— very well on their test.....(*d*) 4
5. I was in the tower of a skyscraper yesterday. I *s*— the people in the street. They looked very small.....(*s*) 5
6. Bill was alone. There weren't — other boys in the room. ( ) 6
7. The flower smells *sw*— .....(*sw*) 7
8. Mother said to Blanche, "I *br*— you a very nice present."(*br*) 8
9. When we have our picture taken, you will *s*— in the chair and I shall stand behind you.....(*s*) 9
10. Do you know how many letters *w*— in the box today?...(*w*) 10
11. I saw you with Tom again yesterday. I always see *h*— and you together.....(*h*) 11
12. Ben couldn't go with us because he wasn't feeling —.... ( ) 12
13. Ned is on the raft. See him jump — the raft into the water..... ( ) 13
14. Hiram was here for a week, but he has — back to the farm..... ( ) 14
15. We learn new things in school every day. Today Miss Brown — us long division..... ( ) 15
16. Robert likes ice cream, but he *d*— care for candy.....(*d*) 16
17. Mother, — I go to the movies when I have finished my work?..... ( ) 17
18. There *w*— scarcely any food left when they arrived....(*w*) 18
19. Bess and Ann would take better care of *th*—*selves* if they looked in a mirror once in a while.....(*th*) 19

20. Mother came into the kitchen as Edith broke a dish. "How many dishes have you *br*—— so far?" she asked.....(*br*) 20
21. If Dan had looked for the skate, he *w*—— — found it..(*w*) 21
22. Tom bought the banana —— a peddler.....() 22
23. *W*—— do you think will win the prize?.....(*W*) 23
24. "Does your mother ever drive down town?"  
"Yes, she has *dr*—— down town every day during the past week.".....(*dr*) 24
25. *W*—— you going to the party with Alice?.....(*W*) 25
26. If Dick hadn't *thr*—— the ball away, we would still have been playing.....(*thr*) 26
27. He was very pleased when his boss gave him a *r*—— in pay(*r*) 27
28. The entire audience *w*—— interested in the speech.....(*w*) 28
29. I think *th*—— problems are easier than these.....(*th*) 29
30. Ted, Jim, and Tony were walking along a lonely road at night. "—— boys aren't afraid," said Ted bravely, "are we?".....() 30
31. Fred wants us to go. It was *h*—— who invited us last week....(*h*) 31
32. Mary had to divide the oranges equally —— the six girls. () 32
33. Betty said, "Claire can't run as fast as I can, even though she is taller than ——.".....() 33
34. As the game is over, I —— I shall go home.....() 34
35. Every boy and every girl *w*—— listening to the radio. . .(*w*) 35
36. Those skates are Edward's. *Th*—— are mine.....(*Th*) 36
37. Mother objects to *m*—— playing ball, but Father does not. (*m*) 37
38. I don't think so small a child *sh*—— —— crossed the busy street alone.....(*sh*) 38
39. "I have already *ch*—— Agnes for my partner," said Mary. (*ch*) 39
40. I recognized John as soon as he came *i*—— the room....(*i*) 40
41. The committee of three boys *h*—— made its report, and we will vote on it.....(*h*) 41
42. With *w*—— were you walking yesterday evening?.....(*w*) 42
43. Neither Joe nor Tom *w*—— going to stay after school . . .(*w*) 43
44. I was so tired that I *l*—— down on the bed and fell asleep..(*l*) 44
45. He told Dan, Ted, and —— that we might go to the movies. () 45

STOP!

## PART II — PUNCTUATION AND CAPITALIZATION

**DIRECTIONS.** In each of the following sentences put in the capital letters and the commas, periods, and other punctuation marks that have been left out. *Do not change any punctuation* that is already in any sentence. The punctuation has been put in correctly in the sample given below.

**SAMPLE.** Where was the ball?<sup>I</sup>~~It~~ was on the chair.

---

my books were on that table

The children stayed at Fred's until the party was over  
their mothers called to take them home.

Bob answered We ought to go together.

Ann did not go to the picnic with her friends she re-  
mained at home to finish her sewing.

Jane hurt herself her finger was badly cut.

The car stops here the bus stops at the next corner.

Must i go to Lincoln high school in the fall

Do you think that we shall arrive on time the train is  
ten minutes late now.

I wasnt planning to return until Labor day.

Does Carl want the candy or the fruit he prefers candy  
but likes fruit too.

While it is still sunny lets go for a swim.

Central park is about a mile from Mauds school.

Prof White in his hurry left his notes at home.

The materials needed are these a piece of paper, a tack,  
and a stick.

**STOP!**



## TEST 6. LITERATURE

**DIRECTIONS.** After each question there are four answers, of which only *one* is correct. In the parentheses after each question put the number of the correct answer.

**SAMPLE.** Sleeping Beauty was awakened by a —

1 king    2 fairy    3 bear    4 prince.....(    )

1. Little Boy Blue was told to —    1 blow his horn    2 mind his brother  
3 chase the cows    4 waken the birds .....(    ) 1
2. In the nursery rhyme, "The cow jumped over the —"  
1 pail    2 fence    3 moon    4 stool.....(    ) 2
3. The number of dwarfs caring for Snow White was —  
1 four    2 five    3 seven    4 three.....(    ) 3
4. The glass slipper fitted —  
1 the Proud Sister    2 Sleeping Beauty    3 Cinderella    4 Pollyanna (    ) 4
5. "Sail on! sail on! sail on! and on!" refers to —  
1 Hercules    2 Columbus    3 Jason    4 the Flying Dutchman.....(    ) 5
6. "America the Beautiful" chiefly expresses —  
1 love of living    2 love of country    3 love of justice  
4 appreciation of fruitfulness.....(    ) 6
7. "A house without books is like a room without windows" means —  
1 books give the light of knowledge    2 books should be kept clean  
3 everybody reads books    4 everybody needs fresh air.....(    ) 7
8. A poem usually contains —  
1 12 lines    2 birds    3 queer words    4 feeling or emotion.....(    ) 8
9. In "Rain in Summer" Longfellow shows how people —  
1 hate the rain    2 are annoyed by rain    3 go inside when it rains  
4 welcome the rain.....(    ) 9
10. When Rip Van Winkle returned from his long sleep, the people —  
1 were delighted to see him    2 did not recognize him  
3 slighted him    4 drove him away .....(    ) 10
11. "The Village Blacksmith" is a poem about a —  
1 contented man    2 small man    3 cruel man    4 lazy man.....(    ) 11
12. The Ten Commandments were given to —  
1 Daniel    2 Samuel    3 Elijah    4 Moses.....(    ) 12
13. The story of Joseph and his brothers tells how Joseph —  
1 sold his brothers as slaves    2 became the ruler of Egypt  
3 put Pharaoh to death    4 bought grain from his father.....(    ) 13
14. The boy who worked in the circus was —  
1 Toby Tyler    2 Robin Hood    3 Sambo    4 Kit.....(    ) 14
15. Buck, an Alaskan husky, was a —  
1 horse    2 lumberjack    3 dog    4 polar bear.....(    ) 15
16. Alice's adventures were caused by a —  
1 dog    2 cat    3 rabbit    4 rat.....(    ) 16



17. The Good Samaritan was — 1 one who helped another 2 an outlaw  
3 Little John 4 the defender of the bridge.....( ) 17
18. Friday was a faithful servant of —  
1 Tarzan 2 Huckleberry Finn 3 Robinson Crusoe 4 Robin Hood ( ) 18
19. John Greenleaf Whittier was —  
1 a poet 2 a President 3 an actor 4 a general.....( ) 19
20. Captain Miles Standish was a friend of — 1 Columbus  
2 the Quakers 3 the Pilgrims 4 Sir Walter Raleigh.....( ) 20
21. The story of "William Tell" is a story of —  
1 Germany 2 France 3 Spain 4 Switzerland.....( ) 21
22. In "Daffodils" the poet writes of — 1 a single flower  
2 a vase of flowers 3 a field of flowers 4 an artificial flower.....( ) 22
23. When Joan of Arc was captured by the English, she was —  
1 hanged 2 electrocuted 3 shot 4 burned to death.....( ) 23
24. The change that took place in Scrooge resulted from —  
1 fright 2 a dream 3 his nephew's pleadings 4 remorse.....( ) 24
25. Robin Hood became an outlaw after killing a —  
1 soldier 2 hunter 3 deer 4 king.....( ) 25
26. Tiny Tim was a — 1 baby 2 cripple 3 fairy 4 dog.....( ) 26
27. Mrs. Wiggs was — 1 cheerful 2 pessimistic 3 wealthy 4 sad( ) 27
28. Neptune was the god of the —  
1 moon 2 sun 3 stars 4 sea.....( ) 28
29. "I think that I shall never see a poem lovely as —"  
1 the lea 2 a tree 3 a bee 4 the sea. ....( ) 29
30. "The King of the Golden River" teaches men —  
1 farming 2 mining 3 charity 4 poverty.....( ) 30
31. Jason went in search of the —  
1 Golden Apple 2 Golden Fleece 3 gold 4 Golden River.....( ) 31
32. Orpheus was —  
1 a builder 2 a soldier 3 a musician 4 an outlaw.....( ) 32
33. Fables were written by —  
1 Aesop 2 Longfellow 3 David 4 Aladdin.....( ) 33
34. Joel C. Harris wrote about the — 1 North 2 East 3 South 4 West( ) 34
35. The theme of "Young Lochinvar" is —  
1 patriotism 2 romance 3 religion 4 humor.....( ) 35
36. In "The Ransom of Red Chief" the boy enjoyed his —  
1 home 2 fine clothes 3 school 4 kidnaping.....( ) 36
37. "In Flanders Fields" tells of the — 1 Civil War 2 Revolutionary  
War 3 World War I 4 French and Indian War.....( ) 37
38. The Norse god of light and fire was —  
1 Thor 2 Ceres 3 Sif 4 Balder.....( ) 38
39. To keep Proserpine with him, Pluto gave her a —  
1 golden apple 2 pony 3 necklace 4 pomegranate.....( ) 39
40. Katrinka's parents were —  
1 murdered 2 imprisoned 3 shot 4 exiled.....( ) 40

41. Moti-Guj was —

1 a horse    2 a dog    3 an Indian    4 an elephant:.....(    ) 41

42. Penrod was embarrassed in church by a —

1 friend    2 beetle    3 dog    4 handkerchief.....(    ) 42

**DIRECTIONS.** In the parentheses after each quotation below put the number of the title with which it is associated.

- |                           |                           |                                |
|---------------------------|---------------------------|--------------------------------|
| 1. Old Ironsides          | 3. Nathan Hale            | 6. The Landing of the Pilgrims |
| 2. The Twenty-third Psalm | 4. Paul Revere's Ride     | 7. The Man Without a Country   |
|                           | 5. The Arrow and the Song |                                |

43. "The Lord is my shepherd. I shall not want.".....(    ) 43

44. "On the eighteenth of April in Seventy-five".....(    ) 44

45. "It fell to earth, I knew not where.".....(    ) 45

46. "I regret that I have but one life to give for my country.".....(    ) 46

**DIRECTIONS.** Each description or incident in the second column tells something about a character or a story in the first column. In the parentheses after each item in the second column put the number of the character or the story from the first column that it tells about.

- |   |  |
|---|--|
| 1. Hiawatha   | 47. He taught his people picture writing.....(    ) 47           |
| 2. How They Brought the Good News from Ghent to Aix | 48. How a great race was won(    ) 48                            |
| 3. Hans Brinker                                     | 49. A girl dyed her red hair green.....(    ) 49                 |
| 4. Little Cosette                                   | 50. A dying soldier brought news of victory.....(    ) 50        |
| 5. An Incident of the French Camp                   | 51. A beautiful doll made the poor girl very happy.....(    ) 51 |
| 6. Sindbad the Sailor                               |  |
| 7. Bruce and the Spider                             |  |
| 8. Anne of Green Gables                             |  |

**DIRECTIONS.** Each character in the second column is from a story or a poem in the first column. In the parentheses after each character in the second column put the number of the story or the poem in which it appears.

- |                                |                                   |
|--------------------------------|-----------------------------------|
| 1. Early Cave Men              | 52. Kit.....(    ) 52             |
| 2. I'm Just Beginning to Fight | 53. Sabre Tooth.....(    ) 53     |
| 3. The Five Little Peppers     | 54. John Paul Jones.....(    ) 54 |
| 4. The Dutch Twins             | 55. Medea.....(    ) 55           |
| 5. The Bluebird                |                                   |
| 6. The Call of the Wild        |                                   |
| 7. Jason and the Golden Fleece |                                   |

**STOP!**

## TEST 7. SOCIAL STUDIES: HISTORY AND CIVICS

**DIRECTIONS.** After each question there are four answers, only one of which is right. In the parentheses after each question put the number of the right answer.

**SAMPLE.** America was discovered by —

- 1 Cortes    2 Balboa    3 Columbus    4 Cabot.....(    )

1. After the Civil War the Negroes in the South were —  
 1 sent to the cities    2 kept from working on farms  
 3 forced to work in factories    4 free.....(    ) 1
2. The Wright brothers built the first successful —  
 1 airplane    2 balloon    3 steel ship    4 dirigible.....(    ) 2
3. The most important institution in the early years of the New England settlements was the —  
 1 jail    2 church    3 library    4 distillery.....(    ) 3
4. You should decide on the candidate you vote for because —  
 1 of his political party    2 he gives jobs to your friends    3 his party has a good platform    4 his past record shows that he will be a good official (    ) 4
5. Community health depends most directly on —    1 a pure water supply  
 2 a high tax rate    3 good railroad transportation    4 good schools...(    ) 5
6. The most important Southern general in the Civil War was —  
 1 Beauregard    2 Early    3 Lee    4 Meade.....(    ) 6
7. An important result of the discovery of gold in California was the —  
 1 increase of slavery    2 war with Mexico    3 Panama Canal  
 4 increased population of California.....(    ) 7
8. In a city, criminals are first dealt with by the —  
 1 Police    2 Legal Department    3 Probation Office    4 Courts....(    ) 8
9. The first commercially successful steamboat was developed by —  
 1 Watt    2 Fulton    3 Cooper    4 Franklin.....(    ) 9
10. The purchase of Louisiana was important because —  
 1 it didn't cost much    2 we bought it from France  
 3 it gave the United States complete control of the Mississippi Valley  
 4 it contained many Indians who wanted to trade furs for goods.....(    ) 10
11. The most important agricultural product of the South after 1800 was —  
 1 tobacco    2 sugar    3 rice    4 cotton.....(    ) 11
12. Texas revolted against —    1 France    2 England    3 Spain    4 Mexico (    ) 12
13. Western Europe became interested in exploration because —  
 1 the feudal system disappeared    2 many schools were opened  
 3 of a desire for new trade routes    4 the Church favored it. ....(    ) 13
14. An incinerator is a —    1 contagious disease    2 method of quarantining  
 3 truck for collecting garbage    4 machine for burning garbage.....(    ) 14
15. The first of these countries to explore the New World was —  
 1 Spain    2 England    3 France    4 Portugal.....(    ) 15
16. The "Forty-Niners" were —    1 settlers in Texas  
 2 men who fought for Oregon    3 a regiment in the Revolutionary War  
 4 seekers for gold in California.....(    ) 16



17. It was hard for the colonists to move west of the Appalachians because —  
 1 they were afraid of the Indians    2 there were no horses available  
 3 there were few places where they could cross the mountains  
 4 they were too poor to travel.....(    ) 17
18. A famous warrior king of Israel was —    1 Alexander    2 David  
 3 Romulus    4 Leonidas.....(    ) 18
19. Marco Polo traveled from —  
 1 Venice    2 London    3 Paris    4 Egypt.....(    ) 19
20. The Puritans and the Quakers had difficulty about —  
 1 food    2 religion    3 land    4 Indians.....(    ) 20
21. The chief cause of the poor condition of the South right after the Civil War was —  
 1 the destruction of its navy    2 the loss of lives and property in the war  
 3 that many people went North    4 that the states were not in the Union (    ) 21
22. The handling of postal money orders is controlled by the —  
 1 Treasury Department    2 Department of the Interior  
 3 Department of Commerce    4 Post Office Department.....(    ) 22
23. The last important battle of the Revolution was at —  
 1 Saratoga    2 Yorktown    3 Monmouth    4 Trenton.....(    ) 23
24. The southeastern part of our country was explored by —  
 1 Coronado    2 De Soto    3 Balboa    4 Columbus.....(    ) 24
25. As a result of the War of 1812 —    1 we gained much territory  
 2 Napoleon was defeated    3 we abandoned Texas temporarily  
 4 European countries learned to respect the United States.....(    ) 25
26. Sound public opinion is the result chiefly of —    1 propaganda  
 2 good laws    3 freedom of speech and press    4 low taxes.....(    ) 26
27. The Constitution provides that the Vice President of the United States shall be the —    1 Secretary of the Interior  
 2 President of the Senate    3 Chief Justice of the Supreme Court  
 4 Speaker of the House.....(    ) 27
28. The Norsemen came originally from —  
 1 Italy    2 Russia    3 France    4 Scandinavia.....(    ) 28
29. Immigrants are persons who —    1 refuse to become naturalized  
 2 lead migratory lives    3 move into a country    4 are deported.....(    ) 29
30. Before Texas became part of the United States —  
 1 only Americans lived there    2 there were no Americans in it  
 3 many Americans had settled there    4 Americans had bought all the land (    ) 30
31. A famous early American locomotive was built by —  
 1 Stephenson    2 Cooper    3 Fulton    4 Franklin.....(    ) 31
32. As a result of Cabot's explorations — 1 Norsemen settled in Newfoundland  
 2 England claimed North America    3 England occupied Greenland  
 4 the Line of Demarcation was determined.....(    ) 32
33. In southwestern United States can be found remains of colonization by men from —    1 France    2 England    3 Spain    4 Portugal (    ) 33
34. Vasco da Gama set out to —  
 1 discover America    2 reach India    3 explore Africa    4 find gold (    ) 34

35. A colonist who was executed as a spy early in the Revolutionary War was — 1 Arnold 2 André 3 Hale 4 Mary Dyer ..... ( ) 35
36. An alien is a — 1 native citizen 2 resident who is not a citizen 3 naturalized citizen 4 Socialist ..... ( ) 36
37. A dishonest storekeeper who gives short weight should be reported to the — 1 Law Department 2 Bureau of Licenses 3 Bureau of Standards and Measures 4 Health Department ..... ( ) 37
38. The colonists opposed the Stamp Tax because they — 1 did not want to pay taxes 2 had never paid any taxes before 3 wanted to be taxed only by their own representatives 4 didn't use stamps ..... ( ) 38
39. An "amendment" is — 1 a mistake in a constitution 2 a Supreme Court decision 3 any alteration meant to improve 4 any addition ..... ( ) 39
40. Jackson was different from all previous Presidents in that he was — 1 a soldier 2 a lawyer 3 a Southerner 4 self-educated ..... ( ) 40
41. The first cable across the Atlantic joined Newfoundland and — 1 France 2 Ireland 3 Norway 4 Spain ..... ( ) 41
42. The growth of New York City during the second quarter of the nineteenth century was influenced most by the — 1 Louisiana Purchase 2 War of 1812 3 Erie Canal 4 Baltimore and Ohio Railroad ..... ( ) 42
43. The Egyptians kept in bondage for many years the — 1 Hebrews 2 Greeks 3 Babylonians 4 Phoenicians ..... ( ) 43
44. In the main, police powers are exercised by the — 1 states and local communities 2 Federal government 3 Army 4 criminologists ( ) 44
45. Edison is noted for the invention of the — 1 phonograph 2 automobile 3 telegraph 4 radio ..... ( ) 45
46. Having citizens vote on a law first passed by the legislature is called the — 1 recall 2 initiative 3 referendum 4 direct primary .. ( ) 46
47. Washington was inaugurated as the first President in — 1 1776 2 1789 3 1796 4 1799 ..... ( ) 47
48. The development of the South since the Civil War has been due chiefly to the — 1 growth of manufacturing 2 freedom of the slaves 3 education of the Negroes 4 migration of many Negroes to the North ( ) 48
49. In the World War of 1914 to 1918 Italy and Japan — 1 remained neutral 2 fought against Germany 3 joined Germany 4 fought each other ..... ( ) 49
50. The Five Intolerable Acts were Parliament's response to — 1 "Leisler's Rebellion" 2 the Stamp Act riots 3 the Boston Tea Party 4 Pontiac's War ..... ( ) 50

**STOP!**



## TEST 8. SOCIAL STUDIES: GEOGRAPHY

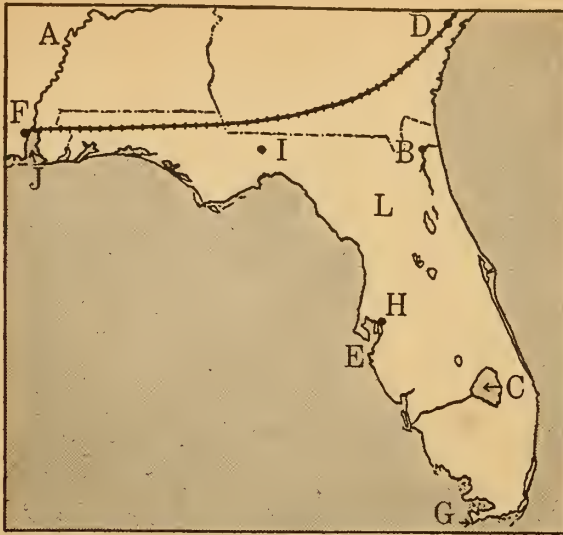
**DIRECTIONS.** After each question there are four answers, of which only *one* is correct. In the parentheses after each question put the number of the correct answer.

**SAMPLE.** Which state has the largest population?

1 Pennsylvania    2 Ohio    3 New York    4 Illinois.....(    )

1. Rich, level, or gently rolling land with plenty of rain will have many —  
1 miners    2 trappers    3 farmers    4 factory workers.....(    ) 1
2. In desert travel serious dangers arise from —  
1 sandstorms    2 monsoons    3 thunderstorms    4 wild camels...(    ) 2
3. In tropical forests the houses often have roofs made of —  
1 tin    2 leaves    3 slate    4 shingles.....(    ) 3
4. Wool comes from —  
1 a plant    2 an animal    3 a tree    4 the ocean .....(    ) 4
5. The ocean is kept from flooding the Netherlands by means of —  
1 canals    2 locks    3 dikes    4 irrigation.....(    ) 5
6. Which one of the following occupations is connected with the production of bread?  
1 miller    2 waitress    3 butcher    4 ranchman.....(    ) 6
7. The chief food of the Lapps is —  
1 wild berries    2 reindeer meat    3 apples    4 cereals .....(    ) 7
8. In China the most valuable of these four crops is —  
1 ginger    2 poppy    3 tea    4 litchi nuts.....(    ) 8
9. In the tropical forests of the Amazon are found —  
1 bears    2 beavers    3 deer    4 monkeys.....(    ) 9
10. The leading industry in the western part of Texas is —  
1 cotton growing    2 cattle raising    3 mining    4 manufacturing..(    ) 10
11. Which one of the following occupations is needed for our protection?  
1 merchant    2 farmer    3 teacher    4 fireman.....(    ) 11
12. On most wall maps the edge toward the ceiling is —  
1 south    2 east    3 north    4 west.....(    ) 12
13. An important seaport is —  
1 San Francisco    2 Buffalo    3 Pittsburgh    4 Toledo.....(    ) 13
14. In the United States spring comes earliest in the —  
1 south    2 north    3 northeast    4 northwest.....(    ) 14
15. "Dry farming" means —    1 farming in deserts    2 irrigation  
3 truck gardening    4 raising crops that can withstand dry seasons....(    ) 15

DIRECTIONS. Refer to the following map to answer questions 16–23.



16. Which one of the following letters shows where there is a seaport indicated on the map?  
F I D B ..... ( ) 16
17. Which letter shows where there is a bay?  
L E C A ..... ( ) 17
18. Which letter shows where there is a cape?  
F H L G ..... ( ) 18
19. Which letter shows where there is a lake?  
C G E J ..... ( ) 19
20. Which letter shows the western end of a railroad?  
D B I F ..... ( ) 20
21. In which direction is city H from city I?  
1 northeast 2 southeast 3 southwest 4 northwest ..... ( ) 21
22. In which general direction does the river flow on which city F is located?  
1 northeast 2 southeast 3 southwest 4 northwest ..... ( ) 22
23. This is a map of —  
1 California 2 Alaska 3 Florida 4 Labrador ..... ( ) 23

DIRECTIONS. In the parentheses after each question put the number of the correct answer.

24. Switzerland has no —  
1 lakes 2 railroads 3 forests 4 seacoast ..... ( ) 24
25. The export of meat from Australia is made possible by —  
1 refrigerator ships 2 refrigerator cars 3 the British navy  
4 more laborers ..... ( ) 25

26. The most profitable industry in the Rocky Mountain states is —  
 1 mining    2 manufacturing    3 dude ranching    4 fur trading .... ( ) 26
27. The most important tobacco-producing state is —  
 1 Kentucky    2 Ohio    3 West Virginia    4 Connecticut ..... ( ) 27
28. Mountainous regions usually have, as a natural resource for power, —  
 1 coal    2 fast streams    3 petroleum    4 peat ..... ( ) 28
29. The people produce for themselves almost everything they eat or wear in — 1 New England    2 Italy    3 Central Africa    4 England ( ) 29
30. The Pacific Northwest has excellent forests because of the large amount of — 1 sunshine    2 rainfall    3 flat land    4 delta soil ... ( ) 30
31. An important product of many German farms is —  
 1 corn    2 mutton    3 rice    4 potatoes ..... ( ) 31
32. An important export from both Spain and Portugal is —  
 1 tobacco    2 lumber    3 wine    4 cheese ..... ( ) 32
33. The principal racial element in Mexico is —  
 1 Negro    2 British West Indian    3 white    4 American Indian .. ( ) 33
34. The chief export from Chile is —  
 1 wool    2 meat    3 nitrate    4 coal ..... ( ) 34
35. Fishing and merchant shipping are important occupations of the —  
 1 Poles    2 Bulgarians    3 Belgians    4 Swedes ..... ( ) 35
36. Massachusetts secures cheap power for manufacturing from its resources of — 1 coal    2 natural gas    3 water power    4 oil .... ( ) 36
37. In what general direction does the Columbia River flow as it enters the Pacific? 1 east    2 west    3 north    4 south ..... ( ) 37
38. The making of cigars and cigarettes is most important in —  
 1 China    2 Turkey    3 Belgium    4 Germany ..... ( ) 38
39. The state of Washington is noted for its —  
 1 pears    2 oranges    3 apples    4 peaches ..... ( ) 39
40. New Jersey has many truck garden farms chiefly because of —  
 1 the long growing season    2 abundant water supply    3 large canneries  
 4 great city markets near by ..... ( ) 40
41. Most of the people who live in Asia belong to the —  
 1 white race    2 red race    3 brown race    4 yellow race ..... ( ) 41
42. France profits most from the exports of products from her —  
 1 dairy farms    2 truck gardens    3 flower gardens    4 vineyards . ( ) 42
43. The western Lake Superior region has immense deposits of —  
 1 asphalt    2 iron    3 petroleum    4 silver ..... ( ) 43
44. One of our principal imports from British India is —  
 1 raw cotton    2 jute    3 petroleum    4 gold ..... ( ) 44

45. We import a great deal of —  
 1 wheat    2 lumber    3 sugar    4 machinery.....(    ) 45
46. One of the chief products of the Norwegian fisheries sent to the United States is canned —    1 salmon    2 sardines  
 3 tuna fish    4 oysters.....(    ) 46
47. A Mediterranean seaport of France is —  
 1 Paris    2 Bordeaux    3 Le Havre    4 Marseille.....(    ) 47
48. Most of the rivers in Mexico are —    1 short and not navigable  
 2 short and navigable    3 long and not navigable    4 long and navigable.(    ) 48
49. The most productive oil fields of the U.S.S.R. are near —    1 Moscow  
 2 the White Sea    3 the Baltic Sea    4 the Caucasus Mountains....(    ) 49
50. The greatest coffee port in the world is —  
 1 Ceylon    2 Mozambique    3 Santos    4 Havana.....(    ) 50
51. The climate of western Europe is influenced chiefly by —  
 1 its longitude    2 the mountains    3 an ocean current  
 4 winds from the Mediterranean.....(    ) 51
52. The most valuable resource of Iran and Iraq is —  
 1 petroleum    2 fish    3 lumber    4 gold.....(    ) 52
53. The rain in the South Central states is brought chiefly by winds from the —    1 north    2 south    3 east    4 west.....(    ) 53
54. In crossing from one time belt into another on a trip to the West, we must —    1 set our watches ahead one hour    2 set our watches ahead three hours    3 set our watches back one hour    4 not change our watches (    ) 54
55. An important island on the route from South Africa to India is —  
 1 Java    2 Cyprus    3 Madagascar    4 Jamaica.....(    ) 55
56. The development of Tibet is hindered by —  
 1 foreigners    2 difficulties of transportation  
 3 unhealthful climate    4 frequent earthquakes.....(    ) 56
57. A leading British export to Brazil and Argentina is —  
 1 coal    2 raw cotton    3 beef    4 hides.....(    ) 57
58. The most densely populated country of Europe is —  
 1 Belgium    2 Finland    3 France    4 Germany.....(    ) 58

**STOP!**



## TEST 9. SCIENCE

**DIRECTIONS.** After each question there are four answers, only *one* of which is right. In the parentheses after each question put the number of the right answer.

**SAMPLE.** An animal with fur is the —

1 dog    2 robin    3 fish    4 turtle.....(    )

1. A tadpole is a young —  
1 salmon    2 frog    3 robin    4 snake.....(    ) 1
2. One grass-eating animal is the —  
1 frog    2 bear    3 squirrel    4 deer.....(    ) 2
3. Birds help farmers by eating insects and —  
1 fruits    2 acorns    3 weed seeds    4 cedar berries.....(    ) 3
4. Nuts are gathered in the —  
1 fall    2 spring    3 summer    4 winter.....(    ) 4
5. The white band of stars across the night sky is called the —  
1 Cloud of Magellan    2 Light Nebula    3 Milky Way    4 Cosmic Cloud (    ) 5
6. Dandelion seeds are scattered by —  
1 water    2 bees    3 wind    4 birds.....(    ) 6
7. The earth moves around the —  
1 sun    2 moon    3 planets    4 stars.....(    ) 7
8. It is dangerous to touch an electric switch —    1 when it is windy  
2 on a rainy day    3 with dry hands    4 with wet hands.....(    ) 8
9. The eel is a —  
1 snake    2 porpoise    3 dolphin    4 fish.....(    ) 9
10. The raw material used in papermaking is —  
1 sand    2 wood    3 silk    4 clay.....(    ) 10
11. In the lungs, the blood gains a supply of —  
1 argon    2 nitrogen    3 carbon dioxide    4 oxygen.....(    ) 11
12. Minerals enter a plant through the —  
1 leaves    2 stems    3 branches    4 root hairs.....(    ) 12
13. A raccoon's tail has —  
1 short white hair    2 no hair    3 scaly skin    4 light and dark rings (    ) 13
14. An animal that protects itself from its enemies by closing its shell is the —  
1 lobster    2 crab    3 clam    4 shrimp.....(    ) 14
15. Silk fibers as compared with wool are —  
1 flatter    2 smoother    3 knobbier    4 weaker.....(    ) 15
16. A hawk's bill is fitted for —    1 twisting pine cones apart  
2 sucking nectar    3 spearing fish    4 tearing meat.....(    ) 16



17. The elbow is a —  
1 muscle    2 joint    3 bone    4 gland.....(    ) 17
18. Stems —  
1 take in water    2 find food    3 keep plants cool    4 hold plants up (    ) 18
19. A frog spends the winter —    1 frozen in ice  
2 in deep water    3 buried in mud    4 under a stone.....(    ) 19
20. Flowers grow from —  
1 buds    2 stems    3 branches    4 roots.....(    ) 20
21. The poles of a horseshoe magnet are —    1 at the two ends  
2 in the center    3 at one end only    4 along the entire length.....(    ) 21
22. Grass keeps soil from washing away because the —  
1 snow melts more quickly    2 water runs off faster  
3 roots hold soil    4 rain soaks in more slowly.....(    ) 22
23. When an opossum sees danger, it —    1 gives off a bad smell  
2 shoots its quills    3 pretends to be dead    4 digs a hole.....(    ) 23
24. The sun rises late and sets early in —  
1 spring    2 autumn    3 summer    4 winter.....(    ) 24
25. A vent in the earth's crust out of which melted rock flows is a —  
1 geyser    2 volcano    3 glacier    4 fault.....(    ) 25
26. Food is carried to all parts of the body by the —  
1 nerves    2 stomach    3 blood    4 lungs.....(    ) 26
27. The hottest stars are —  
1 white    2 red    3 yellow    4 orange.....(    ) 27
28. Lava is —    1 formed under water    2 volcanic rock  
3 a precious gem    4 rock crystal.....(    ) 28
29. Worker ants are unable to —    1 sleep when tired  
2 store food    3 lay eggs    4 carry ant cows about.....(    ) 29
30. The brightest star that can be seen from the earth is —  
1 Castor    2 Aldebaran    3 Betelgeuse    4 Sirius.....(    ) 30
31. The number of minutes later the moon rises each night is about —  
1 75    2 50    3 100    4 125.....(    ) 31
32. The electric telegraph was invented by —  
1 Bell    2 Morse    3 Edison    4 Faraday.....(    ) 32
33. Bees help flowers to make seeds by carrying —  
1 nectar    2 pollen    3 wax    4 honey.....(    ) 33
34. A shooting star is a —  
1 star    2 comet    3 meteor    4 planet.....(    ) 34
35. A named group of stars that appears to form a pattern in the sky is called a —  
1 constellation    2 nebula    3 solar system    4 galaxy.....(    ) 35

36. The records that plants and animals leave in rocks are —  
 1 fossils    2 amber    3 dinosaurs    4 bones.....(    ) 36
37. The motion of the earth that causes day and night is called —  
 1 rotation    2 revolution    3 gravitation    4 momentum.....(    ) 37
38. The oceans, in comparison with land, are heated by the sun — 1 at the  
 same rate    2 more slowly    3 much more rapidly    4 more rapidly (    ) 38
39. Black soils are rich in —  
 1 sand    2 humus    3 clay    4 iron.....(    ) 39
40. The sweet and starchy foods are —  
 1 carbohydrates    2 proteins    3 fats    4 minerals.....(    ) 40
41. Carbon dioxide is —  
 1 an element    2 a compound    3 a salt    4 a base.....(    ) 41
42. A toothed wheel which moves another toothed wheel is —  
 1 a pulley    2 a lever    3 an axle    4 a gear.....(    ) 42
43. The boiling point of pure water at sea level, on the Fahrenheit ther-  
 mometer, is — 1 100°    2 200°    3 212°    4 209°.....(    ) 43
44. A drone bee —  
 1 sleeps in drone cells    2 mates with a queen  
 3 lives through the winter    4 stings a worker to death.....(    ) 44
45. A waste product when food is oxidized in the body's cells is —  
 1 salt    2 calcium    3 oxygen    4 carbon dioxide.....(    ) 45
46. It is possible to contract tuberculosis from — 1 too much sunshine  
 2 unpasteurized milk    3 spoiled food    4 decayed teeth.....(    ) 46
47. Water is —  
 1 an emulsion    2 a mixture    3 a compound    4 an element.....(    ) 47
48. Oxygen is carried from the lungs to all parts of the body by the —  
 1 white corpuscles    2 red corpuscles  
 3 blood plasma    4 fibrinogen.....(    ) 48
49. Bacteria grow slowly in places that are —  
 1 warm    2 cold    3 moist    4 dark.....(    ) 49
50. Canned food sometimes spoils because of —  
 1 bacteria    2 amoebas    3 viruses    4 molds.....(    ) 50
51. Rocks that are found in layers are — 1 formed in dry places  
 2 crystalline    3 sedimentary    4 volcanic.....(    ) 51
52. Plants that live year after year are said to be —  
 1 perennial    2 biennial    3 deciduous    4 evergreen.....(    ) 52

**STOP!**

## TEST 10. SPELLING

- |           |           |
|-----------|-----------|
| 1. _____  | 26. _____ |
| 2. _____  | 27. _____ |
| 3. _____  | 28. _____ |
| 4. _____  | 29. _____ |
| 5. _____  | 30. _____ |
| 6. _____  | 31. _____ |
| 7. _____  | 32. _____ |
| 8. _____  | 33. _____ |
| 9. _____  | 34. _____ |
| 10. _____ | 35. _____ |
| 11. _____ | 36. _____ |
| 12. _____ | 37. _____ |
| 13. _____ | 38. _____ |
| 14. _____ | 39. _____ |
| 15. _____ | 40. _____ |
| 16. _____ | 41. _____ |
| 17. _____ | 42. _____ |
| 18. _____ | 43. _____ |
| 19. _____ | 44. _____ |
| 20. _____ | 45. _____ |
| 21. _____ | 46. _____ |
| 22. _____ | 47. _____ |
| 23. _____ | 48. _____ |
| 24. _____ | 49. _____ |
| 25. _____ | 50. _____ |

No. right..... Stand. score..... Gr. equiv..... Age equiv.....

Name ..... Date ..... 19..  
Teacher ..... Grade ..... School .....  
City ..... County ..... State .....

INDIVIDUAL PROFILE CHART  
METROPOLITAN ACHIEVEMENT TESTS: INTERMEDIATE BATTERY — COMPLETE

★	Test 1 READ- ING	Test 2 VOCAB- ULARY	Test 3 ARITH. FUND.	Test 4 ARITH. PROB.	Test 5 ENG- LISH	Test 6 LITER- ATURE	Test 7 HIST. & CIVICS	Test 8 GEOG- RAPHY	Test 9 SCI- ENCE	Test 10 SPELL- ING	AVE. ACH'T	★	†
14-10												10.0	
14-9													
14-8													
14-7													
14-6													
14-5												9.5	
14-4													
14-3													
14-2													
14-1													
14-0												9.0	
13-11													
13-10													
13-9													
13-8													
13-7												8.5	
13-6													
13-5													
13-4													
13-3													
13-2												8.0	
13-1													
13-0													
12-11													
12-10													
12-9												7.5	
12-8													
12-7													
12-6													
12-5													
12-4												7.0	
12-3													
12-2													
12-1													
12-0													
11-11												6.5	
11-10													
11-9													
11-8													
11-7													
11-6												6.0	
11-5													
11-4													
11-3													
11-2													
11-1												5.5	
11-0													
10-11													
10-10													
10-9													
10-8												5.0	
10-7													
10-6													
10-5													
10-4													
10-3												4.5	
10-2													
10-1													
10-0													
9-11												4.0	
9-10													
9-9													
9-8													
9-7													
9-6													
9-5												3.5	
9-4													
9-3													
9-2													
9-1													
9-0												3.0	

★ These two scales are independent. Only one should be used at one time.  
In plotting this chart, put an X in the box above the scale which is to be used.  
† An additional scale is provided here in order to make it possible to plot the chart in terms of norms other than those of age or grade.

The Profile Chart is designed to furnish a graphic picture of the achievement of an individual pupil as revealed by his test scores. In plotting the equivalents (grade, age, or other type), open the test booklet and lay it flat so that both the title page and the Profile Chart are in view. Plot the equivalent of each test score on the proper stave and join these points to make the profile.

# METROPOLITAN ACHIEVEMENT TESTS

## INTERMEDIATE BATTERY — COMPLETE: FORM S

BY RICHARD D. ALLEN, PH.D.  
 HAROLD H. BIXLER, PH.D.  
 WILLIAM L. CONNOR, M.A.  
 AND FREDERICK B. GRAHAM, PD.M.

Inter.  
 Compl.  
**S**

Name.....Boy.....Girl.....  
 Teacher.....Grade.....School.....  
 City.....County.....State.....

TEST	STAND- ARD SCORE	GRADE EQUIVA- LENT	
1. Reading			
2. Vocabulary			
Average Reading	<del>X</del>	*	*
3. Arithmetic Fundamentals			
4. Arithmetic Problems			
Average Arithmetic	<del>X</del>	*	*
5. English I. Language Usage II. Punct. and Cap. Total English	No separate score for each part.		
6. Literature			
7. Social Studies: Hist.			
8. Social Studies: Geog.			
Average Social Studies	<del>X</del>	*	*
9. Science			
10. Spelling			
Average Achievement	<del>X</del>		

.....  
 Year      Month      Day  
*Date of Testing*

.....  
 Year      Month      Day  
*Date of Birth*

Age ..... yrs. .... mos.

\*Do not include when figuring average achievement.

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## TEST 1. READING

**DIRECTIONS.** In each paragraph a blank line means that a word has been left out. Read each paragraph. Then think of the word that should be in each blank. Write the word *in the parentheses at the side of the page*. You should get the answer from the paragraph itself.

**SAMPLE.** Dick, Tom, and Fred are brothers. The names( ) *a*  
of Dick's brothers are (a) and (b) ..... ( ) *b*

1. The girls went to the store to buy some grapes. They took the (1) to school to make jelly..... ( ) *1*
2. Spelling is an important school subject. Every child should learn to (2) correctly..... ( ) *2*
- 3-5. Tea was known to be used as a drink in China as early as the 6th century but was not (3) by the ( ) *3*  
Europeans until about the 17th century. It was introduced into (4) by a Dutch traveler who learned about ( ) *4*  
it in China. Millions of people in all parts of the world use (5) daily..... ( ) *5*
- 6-7. The crocodile bird, also called the Egyptian plover, rides on the crocodile's back, where he finds and eats insects. He even enters the mouth of the (6) to ( ) *6*  
catch flies. The crocodile recognizes the plover as a friend and would not (7) him..... ( ) *7*
- 8-10. If you are a good reader, your eyes move ( ) *8*  
across the page regularly, seldom going back for a second look at what you have (8) already. A poor (9), on ( ) *9*  
the other hand, needs to (10) back many times..... ( ) *10*
- 11-15. Centuries ago in Madagascar a chief, who wished to count his army, used a plan which developed into a simple decimal system. As each of the (11) ( ) *11*  
marched past the chief a pebble was dropped in a pile on the ground. When there were ten pebbles in the (12) ( ) *12*  
one was taken out and set aside. The remaining (13) ( ) *13*  
were picked up and used over again. When this had been done ten times the chief knew that ten times ten or a (14) soldiers had passed by. In this way the chief (15) all the men in his army..... ( ) *15*
- 16-20. Over two hundred years ago Benjamin Franklin started the first circulating library. He produced the books and hired a librarian to help take care of the (16). Thus was America started on a habit of ( ) *16*  
spare-time (17) that has lasted ever since. Recently the bookmobile has been introduced to assist those country people who live too far from the (18) to take advantage of these city libraries. The (19) is a truck which travels from house to (20). This library is truly a ( ) *19*  
circulating library. ( ) *20*

21-24. There are clocks now that are self-winding. ( ) 21  
 They are wound by changes in temperature. If the  
 (21) changes one degree, this stores up enough power ( ) 22  
 to drive the (22) for four days. Since the temperature ( ) 23  
 is always (23), there is little chance that the (24) will  
 run down. . . . . ( ) 24

25-28. The largest cacao-producing region in the  
 world is in the lowlands of West Africa. Cacao trees  
 must have a hot and moist climate such as this region  
 offers. This hot and moist (25), however, is not healthy ( ) 25  
 for the white man so that natives do most of the (26). ( ) 26  
 Cacao often grows on small plantations. To start a new  
 (27), most of the trees of the forest have to be cleared ( ) 27  
 away. After the cacao trees are planted it takes four or  
 five years before the first crop can be gathered and at  
 least ten years to get a full (28). These trees produce ( ) 28  
 beans which are used in the making of cocoa and  
 chocolate. . . . .

29-33. For centuries the English have appreciated  
 the advantages of speedy transportation, as the British  
 Empire is spread out over the whole earth. The Empire  
 was built up largely in the days when sailing vessels ( ) 29  
 were the only means of crossing the (29). At that time,  
 it took months to make a long (30) across an ocean. ( ) 30  
 Later, steamships cut the (31) to weeks. In 1938 it ( ) 31  
 required six weeks for the usual (32) to carry passengers  
 and freight from England to Australia, but in this same ( ) 32  
 year it took only a week and a half for commercial air-  
 planes to fly the same (33) . . . . . ( ) 33

34-41. A journey that started in India almost two  
 thousand years ago may be ending soon. This is the  
 journey of the gypsies who first left (34), the land of ( ) 34  
 their origin, before the Christian era. They have been  
 wandering ever since, making a living largely by horse  
 trading. For many centuries the horse-drawn gypsy  
 wagon was their means of getting from one place to (35) ( ) 35  
 and also their home in stormy (36). Then came the  
 automobile, and horse trading was no longer a practical ( ) 37  
 way of making a (37). Many gypsies bought (38) and ( ) 38  
 continued to travel from place to place, but gasoline does  
 not grow by the wayside as grass does: it must be paid  
 for. There were fewer and fewer ways for the gypsies to ( ) 39  
 make a living on the open road. More and more of the ( ) 40  
 (39) have now settled down in the towns and (40), and  
 have become part of the mixed (41) of these places. . . ( ) 41

**DIRECTIONS.** Read each paragraph. Then read the questions below it. Write the answer to each question *in the parentheses after it*. You may read the paragraph again if you wish to. Each question can be answered by one word or, at most, a few words. You should get the answer to each question from the paragraph itself.

The little flat where Pierre and Marie Curie lived was notably lacking in comfort. However, they refused furniture offered by Pierre's father, because Marie hadn't the time to clean it. The bareness was relieved only by books, two chairs, and a white wooden table. On the table were scientific books, a bunch of flowers, an oil lamp, and that was all. Before these two chairs, neither of which was for him, the most daring visitor could only flee. The idea of choosing between family and the scientific career did not even cross Marie's mind. She kept house, washed the baby, and put pans on the stove, but she also kept on working in a miserable old shed, working toward the most important discovery of modern science, the discovery of radium.

42. Who offered furniture to Pierre and Marie?.....( ) 42
43. Why couldn't Marie clean the furniture offered?... ( ) 43
44. In what place did Marie do her scientific work?... ( ) 44
45. What did Marie and Pierre use for light?.....( ) 45
46. The discovery of what material is said to be the most important of modern science?.....( ) 46

One of the most picturesque "Way Down East" harbors is Corea, Maine. This little village is an active lobster-fishing center. The harbor is lined around with huts and houses of the fishing folk, and lobster pots are piled everywhere. A few yards back, a single road winds around the harbor, so that every house has its own approach by land and sea. Views of tiny inlets combine the beautiful and picturesque, and many pretty flower gardens bloom with special brilliance beside the changing tide.

47. For what industry is Corea known?.....( ) 47
48. How many roads wind around the harbor?.....( ) 48
49. By what two ways can the homes of the fisher folk be reached?.....( ) 49
50. Where are the lobster pots piled?.....( ) 50
51. What is there in the scene which shows the villagers want their town to be beautiful?.....( ) 51
52. Write in the answer space the letter which appears in front of the best title for this paragraph —  
a. *The Fishing Industry in Maine*    b. *Pretty Flower Gardens*  
c. *The Harbor of Corea*    d. *Lobster Fishing*.....( ) 52



In 1871 a young student doctor in the Montreal General Hospital walked back and forth, back and forth, in his room. He was much worried about his future. He feared that he was not going to be able to become the successful doctor that he wanted so much to be. Without giving much thought to what he was doing, he picked up a book which was lying on the table and read a few words. These are the words he read, "Our main business is not to see what lies dimly at a distance but to do what lies clearly at hand." This so impressed the doctor that he stopped his worried pacing and settled down to work on the next day's examination. The young man was William Osler. He became one of the world's greatest doctors and medical teachers. Osler lived to be seventy years of age and late in his life he said, "The load of tomorrow added to that of today makes the strongest falter." From this we know that he never forgot the lesson he learned as a young man.

53. What did the young student hope to become? . . . . ( ) 53
54. In what city was Osler when he learned the lesson  
which made his life a success? . . . . . ( ) 54
55. What was the young doctor worried about? . . . . . ( ) 55
56. After the incident what did Osler stop doing? . . . . . ( ) 56
57. For what task of the next day did he begin to pre-  
pare? . . . . . ( ) 57

The hive of the honeybee is like a human city. It is governed by strict laws which all the bees obey without question. Every bee has his specialized job to do. Some make the wax from which the honeycomb is built. Others build the honeycomb with its variety of cells. Others act as policemen and will not allow a strange bee to enter the hive, while still others keep the hive clean.

58. To what is the honeybee hive compared? . . . . . ( ) 58
59. What occupation is named which also is to be found  
in a human city? . . . . . ( ) 59
60. By what are all the bees said to be governed? . . . . . ( ) 60
61. How many different jobs are mentioned? . . . . . ( ) 61
62. What word tells us that not all cells in the hive are  
alike? . . . . . ( ) 62
63. Write in the answer space the letter which appears in front of the  
best title for this paragraph —  
a. *Honeybees at Work*    b. *How Honey Is Made*  
c. *Community Life of the Honeybee*  
d. *How Honeybees Make a Living* . . . . . ( ) 63

**STOP!**

## TEST 2. VOCABULARY

**DIRECTIONS.** In the parentheses after each question write the number of the word that makes the sentence most nearly true.

**SAMPLE.** *Big* means the same as — 1 bad 2 pretty 3 large 4 tiny ( )

1. To *hate* means to — 1 admire 2 harry 3 frighten 4 dislike ( ) 1
2. To be *strong* is to be — 1 selfish 2 strange 3 proud 4 powerful ( ) 2
3. *Everywhere* means — 1 someplace 2 elsewhere 3 there 4 all places ( ) 3
4. *Down* means — 1 up 2 below 3 from 4 out ..... ( ) 4
5. A *prize* is a — 1 contest 2 party 3 story 4 reward ..... ( ) 5
6. *Faint* means — 1 noisy 2 plain 3 weak 4 quick ..... ( ) 6
7. *Weather* refers to — 1 climate 2 calendar 3 doubt 4 seashore ( ) 7
8. *Single* refers to — 1 many 2 all 3 both 4 one ..... ( ) 8
9. To be *mistaken* is to be — 1 quiet 2 mixed 3 dim 4 wrong ( ) 9
10. *Distant* means — 1 unpleasant 2 clear 3 far 4 alone .... ( ) 10
11. A *coast* is a — 1 shore 2 bottom 3 steamer 4 dock .... ( ) 11
12. A *level country* has — 1 hills 2 mountains 3 plains 4 valleys ( ) 12
13. To *tease* is to — 1 rip 2 fight 3 annoy 4 drink ..... ( ) 13
14. To *compare* is to — 1 criticize 2 flatter 3 comfort 4 match ( ) 14
15. To *lead* means to — 1 guide 2 weigh 3 measure 4 drive ( ) 15
16. An *island* is a form of — 1 desert 2 wood 3 land 4 water ( ) 16
17. A *comrade* is — 1 a walk 2 a rival 3 an enemy 4 a companion ( ) 17
18. To *happen* is to — 1 arrange 2 trust 3 occur 4 believe .. ( ) 18
19. To *select* is to — 1 vote 2 run 3 name 4 choose ..... ( ) 19
20. A *supply* is a — 1 need 2 help 3 prayer 4 quantity .... ( ) 20
21. A *question* is an — 1 adventure 2 inquiry 3 argument 4 answer ( ) 21
22. To *live* means to — 1 like 2 dwell 3 play 4 wake ..... ( ) 22
23. To *ignore* means to — 1 overlook 2 know 3 kindle 4 imagine ( ) 23
24. To *defend* means to — 1 overcome 2 guard 3 wait 4 attack ( ) 24
25. To *match* is to — 1 fashion 2 lead 3 equal 4 change ... ( ) 25
26. It *seems* means it — 1 sews 2 attempts 3 appears 4 shines ( ) 26
27. To *desert* means to — 1 cling 2 place 3 search 4 abandon ( ) 27
28. *Indeed* means — 1 inasmuch 2 really 3 never 4 amen .. ( ) 28



29. To *threaten* means to — 1 increase 2 storm 3 menace 4 throw ( ) 29
30. To *direct* means to — 1 command 2 improve 3 straighten 4 erect ( ) 30
31. I *want* means I — 1 have 2 would 3 require 4 thank .. ( ) 31
32. To *retire* means to — 1 reduce 2 dress 3 retain 4 withdraw ( ) 32
33. To *depend* is to — 1 deepen 2 need 3 rely 4 help..... ( ) 33
34. To *guide* is to — 1 defend 2 watch 3 supply 4 lead.... ( ) 34
35. To *distrust* is to — 1 confide 2 believe 3 upset 4 doubt ( ) 35
36. *Often* means — 1 rarely 2 now 3 seldom 4 frequently.. ( ) 36
37. To *conceal* is to — 1 forget 2 concede 3 find 4 hide ... ( ) 37
38. I *encourage* means I — 1 amuse 2 attempt 3 surround 4 urge ( ) 38
39. *About* means — 1 over 2 far 3 near 4 above..... ( ) 39
40. *Curious* means — 1 anxious 2 calm 3 inquisitive 4 angry ( ) 40
41. An *appeal* is a — 1 presence 2 request 3 sound 4 paring ( ) 41
42. To be *envious* is to be — 1 joyful 2 greedy 3 jealous 4 constant ( ) 42
43. To *suit* means to — 1 wear 2 fit 3 clothe 4 soil..... ( ) 43
44. *Circumstance* means — 1 circle 2 circuit 3 wealth 4 event ( ) 44
45. *Abundant* means — 1 insufficient 2 abusive 3 plentiful 4 absolute ( ) 45
46. *Devotion* means — 1 hope 2 affection 3 suffrage 4 ambition ( ) 46
47. To *address* is to — 1 greet 2 clothe 3 call 4 write..... ( ) 47
48. To *indicate* means to — 1 hint 2 signify 3 charge 4 dent.. ( ) 48
49. To *hearten* is to — 1 live 2 heed 3 cheer 4 hope..... ( ) 49
50. To *repent* means to — 1 sin 2 regret 3 return 4 restore ( ) 50
51. *Until* means — 1 later than 2 during 3 up to 4 now... ( ) 51
52. *Leisure* means — 1 ease 2 sport 3 work 4 contentment... ( ) 52
53. *Courteous* means — 1 original 2 cowardly 3 civil 4 impudent ( ) 53
54. *Dispatched* means — 1 spread 2 sewed 3 scorned 4 sent ( ) 54
55. She *argues* means she — 1 complains 2 fights 3 disputes 4 repeats ( ) 55

**STOP!**

# TEST 3. ARITHMETIC FUNDAMENTALS

DIRECTIONS. Work each example and write the answer in the box near it. If you have to copy your answer, be sure to copy it correctly. Reduce all improper fractions to mixed numbers, and all fractions to lowest terms.

1. Add

$$\begin{array}{r} 9 \\ 4 \end{array}$$


6. Subtract

$$\begin{array}{r} 9 \\ 2 \end{array}$$


14. Multiply

$$\begin{array}{r} 508 \\ 906 \end{array}$$

2. Add

$$\begin{array}{r} 0 \\ 9 \end{array}$$


7. Subtract

$$\begin{array}{r} 15 \\ 9 \end{array}$$


15. Multiply

$$\begin{array}{r} 5978 \\ 87 \end{array}$$

3. Add

$$\begin{array}{r} 26 \\ 7 \end{array}$$


8. Subtract

$$\begin{array}{r} 79 \\ 31 \end{array}$$


9. Subtract

$$\begin{array}{r} 909 \\ 240 \end{array}$$


4. Add

$$\begin{array}{r} 9 \\ 3 \\ 0 \\ 7 \\ 6 \\ 7 \\ 5 \\ 8 \end{array}$$


10. Subtract

$$\begin{array}{r} 763811 \\ 464762 \end{array}$$

16.  $28 \div 4 =$ 


11. Multiply

$$\begin{array}{r} 2 \\ 9 \end{array}$$


17.

4) 37

5. Add

$$\begin{array}{r} 29699 \\ 88687 \\ 99899 \\ 87739 \\ 42478 \end{array}$$


12. Multiply

$$\begin{array}{r} 221 \\ 4 \end{array}$$


18.

3) 693

13. Multiply

$$\begin{array}{r} 254 \\ 8 \end{array}$$


19.

9) 7821

20.  $41 \overline{) 451}$

21.  $58 \overline{) 46815}$

22.  $\frac{2}{8} =$  4

23.  $\frac{1}{6} + \frac{1}{6} =$

24. Add  $\frac{1}{5}$   
 $\frac{1}{10}$

25. Add  $6\frac{1}{2}$   
 $2\frac{3}{4}$

26.  $\frac{2}{3} + \frac{3}{4} + \frac{5}{6} =$

27. Subtract  $\frac{1}{3}$   
 $\frac{1}{6}$

28. Subtract  $9\frac{3}{4}$   
 $3\frac{1}{4}$

29. Subtract  $8\frac{1}{2}$   
 $3\frac{5}{12}$

30. Subtract  $7\frac{1}{4}$   
 $\frac{1}{2}$

31. Subtract  $5\frac{3}{4}$   
 $\frac{5}{6}$

32.  $\frac{1}{3}$  of 129 =

33.  $\frac{7}{8} \times \frac{5}{7} =$

34.  $9 \times 3\frac{2}{3} =$

$$35. 10 \times 2\frac{2}{5} \times 1\frac{7}{8} =$$

$$36. 4 \div \frac{2}{5} =$$

$$37. \frac{3}{4} \div \frac{3}{16} =$$

$$38. \frac{2}{3} \div 8 =$$

$$39. 2\frac{3}{5} \div 1\frac{1}{5} =$$

40. Add

$$\begin{array}{r} .350 \\ 6.224 \\ 47.055 \\ 325.042 \\ .963 \\ 4.002 \end{array}$$

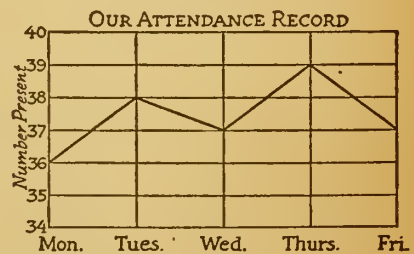
$$41. \$86 - \$3.71 =$$

\$

$$42. 1000 \times .33 =$$

$$43. .23 \times 65.2 =$$

The graph below shows the attendance record of a class of 40 pupils for a week.



44. How many pupils were present on the day when the attendance record was best?

45. How many more pupils were present on the last day than on the first?

46.

$$\begin{array}{r} \boxed{\phantom{0000}} \\ 4 \overline{) .36} \end{array}$$

47.

$$\begin{array}{r} \boxed{\phantom{0000}} \\ .004 \overline{) .0244} \end{array}$$

48.

$$\begin{array}{r} \boxed{\phantom{0000}} \\ 1.35 \overline{) 94.5} \end{array}$$

49.

$$1 \text{ yr.} = \boxed{\phantom{0000}} \text{ wk.}$$

50.

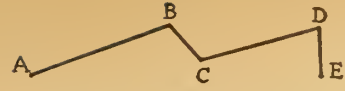
$$2\frac{1}{2} \text{ lb.} = \boxed{\phantom{0000}} \text{ oz.}$$

51. 5 bu. 3 pk. =

bu.

52. Add

$$\begin{array}{r} 5 \text{ ft. } 8 \text{ in.} \\ 3 \text{ ft. } 6 \text{ in.} \\ 7 \text{ in.} \\ \hline \end{array}$$

Scale:  $\frac{1}{8}$  inch = 1 mile

53. The distance from *A* to *B* on above drawing is  $\frac{3}{4}$  in. According to the given scale what is distance in miles?

54. 40% of 45 =

55. 6% of 200 =

56.  $12\frac{1}{2}\%$  of 32 =**STOP!**



## TEST 4. ARITHMETIC PROBLEMS

**DIRECTIONS.** Work each problem and write the answer in the box after the problem. Do your work in the margin at the right of the page.

1. Four boys went fishing. Sam caught 7 fish, Dan 5, Paul 4, and Mark 8. How many fish did the boys catch?.....   1
2. Alice said that she had 22 words right and 8 words wrong in her spelling test. How many words were in the test?.....   2
3. We had 38 red balls on the beach last summer, but this year we had only 29. How many balls were lost?.....   3
4. One stormy day there were 207 pupils present in our school. There should have been 267. How many were absent?.....   4
5. If we average 25 miles an hour on our auto trip, how far can we go in 9 hours?..   mi. 5
6. On our motor trip we used 45 gallons of gasoline. If we paid 21¢ a gallon, how much did the gasoline cost?..... \$  6
7. At our picnic there will be 256 fifth-grade pupils. Each bus holds 32 pupils. How many busses do we need?.....   7
8. If May spends \$1.37 for groceries, how much change should she get from a 10-dollar bill?..... \$  8
9. There are 56 pages in our speller. Our teacher said  $\frac{1}{4}$  of them are review pages. How many review pages are there?.....   9
10. Mr. Hill works 6 days a week and earns \$37.50 a week. How much is that a day?.. \$  10
11. Last summer Walter picked 552 quarts of berries. His father shipped them in crates. If each crate held 24 quarts, how many crates did he use?.....   11

12. Apples are selling 4 for 10¢. How much should I pay for 2 dozen?.....  ¢ 12
13. Mr. Gray has been in Canada two years. How many weeks has he been gone?.....  wk. 13
14. Mrs. Rose bought a  $1\frac{3}{4}$ -yard piece of linen and a  $2\frac{1}{2}$ -yard piece. How much linen did she buy in all?.....  yd. 14
15. Dan gets 30¢ an hour for delivering papers. Yesterday he worked from 6:00 A.M. to 7:30 A.M. How much did he earn?.....  ¢ 15
16. Tom picked 24 boxes of cherries. He said he would give a fourth of them to his brother and a fourth to a neighbor and keep the rest. How many boxes will he keep?.....  16
17. John bought an old bicycle for \$12. He spent \$2.50 for repairs. He sold it for \$18. How much did he gain?.....  \$ 17
18. Our Scout troop started a hike from Groton to Madison, 10.3 miles away. At noon Billy saw a sign that showed we had gone 7.7 miles. How far had we still to go? ...  mi. 18
19. Mrs. Green bought shoes for Tom and his brother at \$4.89 a pair, sweaters at \$2.98 each, and caps for 78¢ each. How much did the new outfits for two boys cost?....  \$ 19
20. Our principal told us that the bill for our 75 history books was \$43.50. What did one book cost?.....  ¢ 20
21. Don spends 30¢ each week for the movies. How much money does he spend in a year?  \$ 21
22. Milk sells at 16¢ a quart. We need 6 gallons for our church supper. How much will the milk cost?.....  \$ 22
23. Amy bought  $3\frac{1}{4}$  yards of ribbon. She used  $2\frac{3}{8}$  yards for a dress. How much did she have left for a hair ribbon?.....  yd. 23
24. Nellie practices her music lessons  $\frac{3}{4}$  hour every day. How many hours of practicing does she do in 7 days?.....  hr. 24

25. If eggs are 48¢ a dozen, how much did the 2 eggs I ate today cost?..... ¢ 25
26. A freight agent was unloading boxes. The hand truck weighed  $35\frac{3}{4}$  lb. On the scales one box and the hand truck weighed  $84\frac{1}{2}$  lb. What was the weight of the box?..... lb. 26
27. Joan bought 8 yards of ribbon. She used  $1\frac{3}{4}$  yards for her hair and  $2\frac{7}{8}$  yards for her dress. How much did she have left?.. yd. 27
28. The gas bills for our family for the first six months were: \$3.20, \$2.75, \$3.00, \$2.65, \$2.50, and \$2.25. What was the average cost per month for our family?.... \$ 28
29. The candy-store man pays \$1.50 for a 5-pound box of candy and sells it for 10¢ a 4-ounce bag. How much does he make on a 5-pound box?..... ¢ 29
30. Bob worked  $4\frac{1}{2}$  hours on Monday,  $3\frac{3}{4}$  hours on Tuesday, and 4 hours on Thursday. At 40¢ an hour, how much did he earn?..... \$ 30
31. If 4 bars of chocolate are to be divided among 5 boys, what part of a bar should each boy get?..... 31
32. How many pieces,  $\frac{7}{8}$  yard in length, could you cut from  $3\frac{1}{2}$  yards of linen?..... 32
33. Joe planted 35 five-cent tomato plants. He gathered 120 lb. of tomatoes and sold them for 6¢ a pound. How much did he make?.. \$ 33

**STOP!**

## TEST 5. ENGLISH: PART I — LANGUAGE USAGE

**DIRECTIONS.** In each sentence *one* word is left out for each blank line. Think of the *one* word that should be written on the blank line to make the sentence correct and *sensible*. Write the word in the parentheses after the sentence. Read the whole sentence before you write the word. (Sometimes the first letter of the word you are to use is given.) *Read the sentence again* after you have written the word, to be sure that it is correct and sensible.

**SAMPLES.** John says he *d*—— like to lose a game. . . . . (*d* )  
 Mary hasn't —— more paper left for her lessons. ( )

1. Jack's mother won't *l*—— him play with us. . . . . (*l* ) 1
2. Ted hurt —— *self* very badly when he fell from his bicycle. ( ) 2
3. Ben *c*—— to school late this morning. . . . . (*c* ) 3
4. There is hardly —— fruit left in the bowl. . . . . ( ) 4
5. Yesterday Carol *d*—— her homework before supper. . . . . (*d* ) 5
6. Because we were good, Bob and —— were allowed to go. ( ) 6
7. I always did like to ride on *th*—— kind of boat. . . . . (*th* ) 7
8. Here is the book —— you lent me last week. . . . . ( ) 8
9. He *s*—— in the most comfortable chair. . . . . (*s* ) 9
10. Although we sat in the last row, we *s*—— the actors clearly because we used opera glasses. . . . . (*s* ) 10
11. My dog is clever. He can learn any trick I try to —— him. ( ) 11
12. She gave the tramp milk, which he *dr*—— immediately. . . . . (*dr* ) 12
13. Of the three pretty sisters, Peggy is the *pr*——. . . . . (*pr* ) 13
14. We wished to go to the movies, but we *a*—— going because we haven't enough money . . . . . (*a* ) 14
15. "Did Mother go shopping, Jane?"  
 "No, she has —— to visit Aunt Ellen." . . . . . ( ) 15
16. When Mary fell, she *h*—— her leg a great deal. . . . . (*h* ) 16
17. He could see that *th*—— were only two boys in the room. . . . . (*th* ) 17
18. "Does he always take the same train?"  
 "Yes, he has *t*—— the same train every day for two years." (*t* ) 18
19. We can go skating, because the water in the lake is *fr*——. . . . . (*fr* ) 19

20. There *w*—— hardly any food on hand when they arrived. (*w*) ) 20
21. Mr. Smith, one of the children —— gone to look for the teacher..... ( ) 21
22. The ring wasn't —— *where* to be found. It was lost..... ( ) 22
23. Fred is just beginning, but Jenny *b*—— ten minutes ago. (*b*) ) 23
24. *Th*—— books are Helen's, but the ones on that table are mine..... (*Th*) ) 24
25. Please —— her with you to the play..... ( ) 25
26. If you hadn't *thr*—— that plate, it wouldn't have broken.. (*thr*) ) 26
27. The committee *w*—— made up of three boys ..... (*w*) ) 27
28. We have *dr*—— a hundred miles by auto this morning... (*dr*) ) 28
29. "I am *l*—— on the bed, but I am not asleep," said Mary.. (*l*) ) 29
30. Stanley did well the card tricks that Dick —— him..... ( ) 30
31. With *w*—— was Sally playing when you saw her yesterday? (*w*) ) 31
32. Bill *thr*—— his hat into the air..... (*thr*) ) 32
33. "Did you eat the cheese?"  
"No, I have —— only the crackers." ..... ( ) 33
34. Billy is 8 years old, but he hasn't —— been to school..... ( ) 34
35. The boys in my class are much taller than ——..... ( ) 35
36. We got the boat —— Mr. Jones, who kindly lent it to us.. ( ) 36
37. I haven't *wr*—— her for a week, because I broke my arm.. (*wr*) ) 37
38. *W*—— did you say wanted to see me?..... (*W*) ) 38
39. The bottle would have *s*—— if it had been full..... (*s*) ) 39
40. We had to walk very *qu*—— in order to get there on time.. (*qu*) ) 40
41. I recognized John as soon as he came *i*—— the room..... (*i*) ) 41
42. There was a gradual *r*—— in the temperature during the morning..... (*r*) ) 42
43. We were all very good, but she gave only Mary and —— candy. Mine tasted very good..... ( ) 43
44. Do Jim's parents object to *h*—— playing football?..... (*h*) ) 44
45. The man at *w*—— you are looking is my uncle ..... (*w*) ) 45

**STOP!**



## PART II — PUNCTUATION AND CAPITALIZATION

**DIRECTIONS.** In each of the following sentences put in the capital letters and the commas, periods, and other punctuation marks that have been left out. *Do not change any punctuation* that is already in any sentence. The punctuation has been put in correctly in the sample given below.

**SAMPLE.** Where was the ball?<sup>I</sup>~~It~~ was on the chair.

---

On monday we shall see a movie

The children go to a camp in vermont in ' july.

while they were waiting patiently for supper Sam got together wood paper and dried leaves for the fire.

Where is my book you put it away this morning.

We dont go to the seashore in the summer.

Bob was reading the book which the teacher had asked him to read he likes to read books.

Why hasnt the book been returned to the library

That is Ted's game will you please give it to him?

The paper is too thick we need thin paper.

The book is torn if mother sees it she will be angry.

Mrs Green is Carols aunt.

Mother said, Ned you must put your toys away now.

Is that so who would have expected Dick to win the prize?

Newark New Jersey is a large city.

The studies I like best are these literature, music, and languages.

**STOP!**

## TEST 6. LITERATURE

**DIRECTIONS.** After each question there are four answers, of which only *one* is correct. In the parentheses after each question put the number of the correct answer.

**SAMPLE.** Sleeping Beauty was awakened by a —

1 king    2 fairy    3 bear    4 prince.....(    )

1. Humpty Dumpty fell from a —  
1 fence    2 wall    3 pony    4 tree.....(    ) 1
2. Little Red Riding Hood was saved from the wolf by —  
1 her grandmother    2 her mother    3 the woodcutter    4 the birds .(    ) 2
3. The Pledge of Allegiance is made to our — 1 father and mother  
2 flag and country    3 friends    4 school and teacher.....(    ) 3
4. In "Little Black Sambo" the tigers turned into —  
1 princes    2 butter    3 snakes    4 salt.....(    ) 4
5. "It takes two to make a —"  
1 ship    2 mistake    3 game    4 quarrel.....(    ) 5
6. "Land of the Pilgrims' pride" is a quotation from —  
1 Trees    2 The Apple Orchard in Spring    3 Columbus    4 America.(    ) 6
7. The beans Jack brought home to his mother were —  
1 cooked    2 planted    3 thrown away    4 soon eaten.....(    ) 7
8. "Robinson Crusoe" tells about life —  
1 in a big city    2 on a farm    3 on an island    4 under the sea...(    ) 8
9. Men who can carry a message to Garcia are —  
1 rich    2 unemployed    3 plentiful    4 trustworthy.....(    ) 9
10. Clara Barton was a —  
1 writer    2 nurse    3 doctor    4 singer.....(    ) 10
11. Robin Hood lived in —  
1 France    2 the United States    3 Germany    4 England.....(    ) 11
12. The poem "Four-Leaf Clover" tells — 1 what to do if you find one  
2 how to grow them    3 what each leaf is for    4 how children pick them(    ) 12
13. "The Barefoot Boy" is a poem about —  
1 an orphan lad    2 a country boy    3 a lazy boy    4 a city boy...(    ) 13
14. The March Family in "Little Women" was —  
1 well-to-do    2 miserly    3 poor    4 rich.....(    ) 14
15. Joan of Arc was a —  
1 princess    2 city girl    3 witch    4 peasant girl.....(    ) 15
16. According to "The Things I Prize" the greatest blessing in life is —  
1 friendship    2 shelter    3 strength    4 courage.....(    ) 16
17. In the story of "The Hare and the Tortoise" —  
1 the tortoise fell asleep    2 the hare won the race  
3 the tortoise stayed at home    4 the tortoise won the race.....(    ) 17

18. When "Somebody's Mother" reached home after being helped across the street by a boy, she —  
 1 prayed for him    2 sent him a gift  
 3 wrote a letter to his parents    4 forgot all about it.....(    ) 18
19. Olympus was the home of the —  
 1 Greek gods    2 Norse gods    3 Egyptian gods    4 Indian gods ..(    ) 19
20. When Abou Ben Adhem awoke, he saw —  
 1 a man    2 a lady    3 an angel    4 a child.....(    ) 20
21. Mark Twain was —  
 1 American    2 English    3 French    4 Spanish.....(    ) 21
22. The miser who became kind was —  
 1 Little John    2 Jason    3 Cratchit    4 Scrooge.....(    ) 22
23. Sherlock Holmes liked to play the —  
 1 piano    2 guitar    3 flute    4 violin.....(    ) 23
24. Paul Revere's signal to start was a —  
 1 shout    2 light    3 shot    4 message.....(    ) 24
25. A fairy with blue hair is a character in —  
 1 The Irish Twins  
 2 The Fairies    3 Alice in Wonderland    4 Pinocchio.....(    ) 25
26. Longfellow tells how a song was found —  
 1 in the heart of a friend  
 2 in an oak tree    3 buried in the earth    4 under a spreading chestnut tree (    ) 26
27. David slew the Philistine with —  
 1 a spear    2 a hammer    3 a stone    4 poison.....(    ) 27
28. "Under a spreading chestnut tree, the —"  
 1 horse is tightly tied  
 2 lovers meet again    3 village smithy stands    4 town gossip stands.(    ) 28
29. At the "Mad Tea Party" the one who was sleeping was the —  
 1 Queen    2 Hatter    3 March Hare    4 Dormouse.....(    ) 29
30. A fable usually —  
 1 tells a joke    2 has a dwarf in it  
 3 teaches some lesson    4 tells about Greece.....(    ) 30
31. "Seven Times One" is a —  
 1 poem    2 fairy tale    3 play    4 proverb.....(    ) 31
32. "If you wish a thing to be well done, you must do it yourself" was said by —  
 1 John Alden    2 Priscilla    3 Captain Standish  
 4 Governor Winthrop.....(    ) 32
33. The author, Rudyard Kipling, was —  
 1 English    2 American    3 Spanish    4 French.....(    ) 33
34. Orpheus helped Jason with —  
 1 wings    2 poetry    3 a magic harp    4 a sword.....(    ) 34
35. Washington Irving wrote legends of the —  
 1 South    2 Mississippi    3 West    4 Hudson Valley.....(    ) 35
36. When we plant a tree we "plant" —  
 1 a ship    2 a road    3 an airplane    4 a farm .....(    ) 36
37. "Thor's Wonderful Journey" is a story about the god of —  
 1 peace    2 war    3 love    4 song.....(    ) 37
38. In "Anne of Green Gables" Marilla wished to adopt a —  
 1 girl    2 baby    3 boy    4 puppy.....(    ) 38

**DIRECTIONS.** In the parentheses after each quotation below put the number of the title with which it is associated.

- |                  |                          |                                 |
|------------------|--------------------------|---------------------------------|
| 1. Old Ironsides | 4. Evangeline            | 7. O Little Town of Bethlehem   |
| 2. Requiem       | 5. America the Beautiful | 8. Preamble to the Constitution |
| 3. America       | 6. Abou Ben Adhem        |                                 |
39. "How still we see thee lie." ..... ( ) 39
40. "O beautiful for spacious skies,  
For amber waves of grain,  
For purple mountain majesties above the fruited plain!" ..... ( ) 40
41. "Oh, better that her shattered hulk should sink beneath the waves." ( ) 41
42. "We, the people of the United States . . ." ..... ( ) 42
43. "Fair was she to behold, that maid of seventeen summers." ( ) 43
44. "I pray thee, then, write me as one who loves his fellow men." ..... ( ) 44

**DIRECTIONS.** Each description or incident in the second column tells something about a character or a story in the first column. In the parentheses after each item in the second column put the number of the character or the story from the first column that it tells about.

- |                               |   |
|-------------------------------|---|
| 1. Toby Tyler                 | 45. A boy worked in a circus . ( ) 45                           |
| 2. Robin Hood and Little John | 46. He had a wonderful travel-<br>ing cloak. .... ( ) 46        |
| 3. The Prince and the Pauper  | 47. A girl went to live with two<br>maiden aunts. .... ( ) 47   |
| 4. Rebecca of Sunnybrook Farm | 48. A poor girl was frozen to<br>death on New Year's Eve ( ) 48 |
| 5. The Little Lame Prince     | 49. Two boys changed clothing<br>and places. .... ( ) 49        |
| 6. Pinocchio                  | 50. Two men had a fight on a<br>bridge. .... ( ) 50             |
| 7. The Highwayman             |   |
| 8. The Little Match Girl      |   |
| 9. Anne of Green Gables       |   |

**DIRECTIONS.** In the parentheses after each character in Column 2 put the number of the character from Column 1 that appears in the same story.

- | COLUMN 1            | COLUMN 2                           |
|---------------------|------------------------------------|
| 1. Oliver Twist     | 51. The Forty Thieves. .... ( ) 51 |
| 2. Hans             | 52. Baloo. .... ( ) 52             |
| 3. Ali Baba         | 53. Elizabeth Ann. .... ( ) 53     |
| 4. Rebecca          | 54. Schwartz. .... ( ) 54          |
| 5. Kit              | 55. Pythias. .... ( ) 55           |
| 6. Bagheera         |                                    |
| 7. Damon            |                                    |
| 8. Understood Betsy |                                    |

**STOP!**



## TEST 7. SOCIAL STUDIES: HISTORY AND CIVICS

**DIRECTIONS.** After each question there are four answers, only **one** of which is right. In the parentheses after each question put the number of the right answer.

**SAMPLE.** America was discovered by —

1 Cortes      2 Balboa      3 Columbus      4 Cabot.....(    )

1. The earlier frontier colonists were often in danger from —  
1 wild animals      2 Indian raids      3 floods  
4 attacks by English soldiers.....(    ) 1
2. Edison was a famous — 1 explorer      2 doctor      3 inventor      4 writer (    ) 2
3. The Spaniards knew nothing of America before 1492 because —  
1 their ships could not cross the ocean      2 they had no interest in geography  
3 sailors were afraid to cross the ocean      4 they feared the Indians (    ) 3
4. The Lincoln family were typical —  
1 slaveholders      2 traders      3 frontier settlers      4 explorers.....(    ) 4
5. The people of a nation must have government in order to —  
1 make money      2 secure peace and order      3 reduce taxes  
4 vote for officers.....(    ) 5
6. If most citizens do not like a law, they should —  
1 refuse to pay their taxes      2 try to have it repealed      3 not obey it  
4 try to get others to disobey it.....(    ) 6
7. Columbus' discovery of America was made possible through the aid of —  
1 England      2 Portugal      3 Spain      4 Italy.....(    ) 7
8. Lewis and Clark — 1 captured forts in the Revolutionary War  
2 were famous primarily as Indian fighters      3 were traders  
4 explored the great Northwest.....(    ) 8
9. A language used widely in Canada today is —  
1 Spanish      2 French      3 Italian      4 Dutch.....(    ) 9
10. To become an American citizen, an immigrant must —  
1 go to school      2 be naturalized      3 save money      4 own land....(    ) 10
11. Foreigners living in this country should become citizens so that they can —  
1 share the rights and duties of citizenship      2 earn more money  
3 stay in this country      4 be protected by the law.....(    ) 11
12. An instrument that helped explorers as early as 1400 was the —  
1 gyroscope      2 compass      3 horoscope      4 aneroid barometer....(    ) 12
13. Increased European interest in the Far East resulted from the travel tales of —  
1 Columbus      2 Marco Polo      3 Prince Henry      4 Da Gama (    ) 13
14. The official of the county government who approves expenses for county school repairs is the —  
1 county clerk      2 school trustee      3 assessor      4 sheriff.....(    ) 14
15. Morse invented the —  
1 sewing machine      2 radio      3 telegraph      4 telephone.....(    ) 15
16. The most important function of government is — 1 building roads  
2 providing secret ballots      3 protecting life and property      4 taxation (    ) 16
17. The President who arranged for us to build the Panama Canal was —  
1 Theodore Roosevelt      2 McKinley      3 Taft      4 Wilson.....(    ) 17



18. As a result of the war with Mexico we —  
 1 were defeated    2 gained land in the Northwest  
 3 gained territory in the Southwest    4 gave land to Mexico.....(    ) 18
19. A summons is —    1 a consumer    2 a conviction  
 3 a fine after conviction in court    4 an order to appear in court.....(    ) 19
20. Most immigrants come to America now to —  
 1 live in greater security    2 find adventure  
 3 promote new religions    4 promote new political theories.....(    ) 20
21. The ancient civilization of Egypt was made possible in the first place by —  
 1 sea power    2 military power    3 great public works    4 the Nile River (    ) 21
22. At the end of the Civil War —    1 the Southern trade was good  
 2 the South was producing more than ever    3 the South became a confederacy  
 4 many parts of the South were in ruins.....(    ) 22
23. We get our word "stadium" from the language of —  
 1 Egypt    2 Babylon    3 Persia    4 Greece.....(    ) 23
24. When Alaska was bought, most people thought it was —  
 1 wise to buy it    2 worth much more than we paid  
 3 not worth what we paid    4 leading us into war with Russia.....(    ) 24
25. A medieval monastery was a —    1 castle    2 city  
 3 place for religious men to live and study    4 school in a cathedral... (    ) 25
26. Slaves were first sold to English colonists at —  
 1 New Amsterdam    2 Roanoke    3 Jamestown    4 Plymouth ....(    ) 26
27. Louisiana was purchased chiefly as a result of the efforts of —  
 1 Jefferson    2 Hamilton    3 Washington    4 Franklin.....(    ) 27
28. America was named after —  
 1 Verrazano    2 Columbus    3 Cabot    4 Vespucci.....(    ) 28
29. In the Dark Ages very few persons knew how to read or write besides the —  
 1 knights    2 churchmen    3 craftsmen    4 merchants.....(    ) 29
30. The most important industry in the Oregon Country before 1840 was —  
 1 fur trading    2 fishing    3 lumbering    4 gold mining.....(    ) 30
31. There still remain from the Middle Ages many —    1 printed books  
 2 beautiful buildings    3 labor-saving machines    4 scientific instruments (    ) 31
32. The oldest permanent city in the United States was founded by the —  
 1 Spanish    2 English    3 Portuguese    4 French.....(    ) 32
33. Just before Texas became part of the United States, it was regarded by our government as —    1 a part of Mexico    2 an independent country  
 3 a Spanish possession    4 a part of Louisiana.....(    ) 33
34. Regular steamship travel between Europe and America began about —  
 1 1800    2 1810    3 1820    4 1840.....(    ) 34
35. The first fighting of the Revolutionary War took place in —  
 1 New York    2 Virginia    3 Connecticut    4 Massachusetts.....(    ) 35
36. The blockade of Confederate ports by the Federal navy —    1 had little effect on the Civil War  
 2 helped the British cotton-spinning industry  
 3 made it hard for slaves to escape    4 ruined Southern foreign trade .(    ) 36

37. A machine that greatly hastened the settling of the later West was the — 1 cotton gin 2 McCormick reaper 3 hemp stripper 4 seismograph ( ) 37
38. England claimed North America because of the explorations of — 1 Raleigh 2 Hudson 3 Cabot 4 Smith.....( ) 38
39. Washington was President for — 1 two years 2 four years 3 eight years 4 twelve years.....( ) 39
40. Labels on commercial bottles and cans of food must specify — 1 the price 2 that the food is freshly packed 3 the location of the cannery 4 chemicals added.....( ) 40
41. The treaty that ended the War of 1812 gave — 1 neither side anything 2 the Americans part of Canada 3 the British part of Maine 4 fishing rights to the French.....( ) 41
42. The department of a city government that regulates the heights of buildings is the — 1 Bureau of Standards and Measures 2 Bureau of Licenses 3 Law Department 4 Building Department ( ) 42
43. Booker T. Washington was a famous — 1 politician 2 Negro poet 3 explorer 4 Negro educator.....( ) 43
44. A famous battle of the World War of 1914 to 1918 was fought at — 1 Manila 2 the Marne 3 London 4 Berlin.....( ) 44
45. The carpetbaggers were — 1 freedmen 2 Southerners 3 members of a secret society 4 politicians from the North.....( ) 45
46. Picketing is most commonly done by — 1 strikers 2 employers 3 non-union laborers 4 strikebreakers ( ) 46
47. The Stamp Tax was repealed — 1 a year after it was passed 2 a month after it was passed 3 after the Revolutionary War began 4 before the French and Indian War ( ) 47
48. By "recall" is meant — 1 putting an official out of office by the vote of the people 2 setting aside a law 3 voting directly on a bill 4 impeachment ..( ) 48
49. The legal permission to use the streets of a city for public-utility purposes is called — 1 a mortgage 2 an injunction 3 a writ 4 a franchise ( ) 49
50. Before the Civil War, Grant was a — 1 general 2 politician 3 tanner 4 showman.....( ) 50

**STOP!**

## TEST 8. SOCIAL STUDIES: GEOGRAPHY

**DIRECTIONS.** After each question there are four answers, of which only **one** is correct. In the parentheses after each question put the number of the correct answer.

**SAMPLE.** Which state has the largest population?

1 Pennsylvania    2 Ohio    3 New York    4 Illinois.....(    )

1. Which one of the following occupations is connected with building a house?  
1 gardener    2 cook    3 writer    4 bricklayer.....(    ) 1
2. Cotton comes from —  
1 a plant    2 an animal    3 a tree    4 chemicals .....(    ) 2
3. What name is given to a large group crossing the desert together?  
1 caravan    2 train    3 pack    4 army.....(    ) 3
4. There are most hours of daylight in —  
1 spring    2 summer    3 autumn    4 winter.....(    ) 4
5. Beautiful seaside towns with sandy beaches are good for —  
1 shipbuilding    2 dairying    3 factories    4 vacationing.....(    ) 5
6. Which one of the following occupations is connected with making books?  
1 plumber    2 sexton    3 editor    4 painter .....(    ) 6
7. Level or gently rolling grassland with light rains will have many —  
1 truck farmers    2 cattle raisers    3 shipbuilders    4 hotelkeepers(    ) 7
8. Most anthracite coal in the United States is obtained from —  
1 Pennsylvania    2 Alabama    3 New York    4 Colorado.....(    ) 8
9. The mulberry tree is grown in Japan chiefly because it is —  
1 held sacred by the people    2 valuable for its fruit  
3 needed for the silkworm    4 useful for soil conservation.....(    ) 9
10. For their chief means of travel the Lapps use —  
1 boats    2 planes    3 sledges    4 autos.....(    ) 10
11. The people of Central Africa eat mostly —  
1 meat    2 fish    3 cereals    4 fruit.....(    ) 11
12. One of Canada's most important natural resources is —  
1 rubber    2 tin    3 salt    4 fur-bearing animals.....(    ) 12
13. Most of the agriculture of Egypt is made possible by —  
1 nearness to the Red Sea    2 irrigation from the Suez Canal  
3 the use of tractors    4 the Nile River .....(    ) 13
14. New Jersey produces mostly —  
1 wheat and lamb    2 tobacco    3 cotton    4 vegetables and poultry(    ) 14
15. The chief agricultural product of the Brazilian highlands is —  
1 sisal    2 cotton    3 bananas    4 coffee.....(    ) 15

DIRECTIONS. Refer to the following map to answer questions 16–23.



16. Which one of the following letters shows where there is a seaport indicated on the map?  
E   G   F   J ..... (   ) 16
17. Which letter shows where there is a bay?  
I   G   K   B ..... (   ) 17
18. Which of these cities is at the highest altitude?  
B   E   D   H ..... (   ) 18
19. Which letter shows where there is an island?  
K   I   A   G ..... (   ) 19
20. Which letter shows the southern end of a railroad?  
F   H   B   D ..... (   ) 20
21. In which direction is city B from city D?  
1 southeast   2 northwest   3 northeast   4 southwest ..... (   ) 21
22. In which general direction does the river flow on which city D is located?  
1 southeast   2 northwest   3 northeast   4 southwest ..... (   ) 22
23. This is a map of —  
1 the British Isles   2 the Philippines   3 New Guinea   4 Japan .. (   ) 23

DIRECTIONS. In the parentheses after each question put the number of the correct answer.

24. Trees growing nearest the tops of mountains in the North are usually —  
1 firs   2 maples   3 oaks   4 willows ..... (   ) 24
25. Most of the farm workers in Burma work in the —  
1 wheat fields   2 rubber groves   3 rice fields  
4 cotton fields ..... (   ) 25



26. A product which must be imported into the United States because the climate is not suitable for raising it here is —  
 1 the orange    2 sugar    3 the lemon    4 coffee ..... ( ) 26
27. In the Netherlands there are — 1 several high mountain ranges  
 2 many forests    3 considerable areas below sea level    4 many waterfalls ( ) 27
28. Most of the people of Central Africa are —  
 1 Arabs    2 Indians    3 Negroes    4 European settlers..... ( ) 28
29. Newfoundland's chief industry is —  
 1 farming    2 mining    3 lumbering    4 fishing..... ( ) 29
30. The fruit exported in greatest quantities from Central America is the —  
 1 pineapple    2 banana    3 orange    4 grapefruit..... ( ) 30
31. Pearl Harbor is a naval base in the —  
 1 East Indies    2 Philippines    3 Hawaiian Islands    4 Aleutians.. ( ) 31
32. The southeastern part of Alaska has developed more rapidly than the northern because it has —  
 1 a regular coast line  
 2 extensive forests    3 notable scenic attractions    4 the milder climate ( ) 32
33. The people of Tibet depend for food and clothing upon —  
 1 neighboring countries    2 imports    3 their own flocks and farms  
 4 lakes and streams..... ( ) 33
34. The South can produce much cotton because of its —  
 1 growing season of over 200 days    2 limited rainfall  
 3 many mechanical cotton pickers    4 organized labor ..... ( ) 34
35. Wheat, oats, and most other small grains thrive best in —  
 1 the frigid zones    2 subtropical climates  
 3 the temperate zones    4 the torrid zone..... ( ) 35
36. Java is one of the leading producers of —  
 1 cotton    2 copper    3 rubber    4 amber..... ( ) 36
37. An important industry in both Australia and the United States is —  
 1 the manufacture of linen    2 livestock raising  
 3 iron mining    4 oil production..... ( ) 37
38. The city nearest to Canada is —  
 1 New York    2 Detroit    3 Denver    4 San Francisco..... ( ) 38
39. One would expect Switzerland to —  
 1 have much water power    2 import dairy products  
 3 export much grain    4 have good transportation..... ( ) 39
40. The center of the automobile-manufacturing industry is —  
 1 Ohio    2 Michigan    3 Illinois    4 New York..... ( ) 40
41. An important river port is —  
 1 St. Louis    2 Denver    3 Los Angeles    4 Boston..... ( ) 41
42. Both wheat and olives can be raised in —  
 1 Great Britain    2 Germany    3 Poland    4 France..... ( ) 42



43. A region which produces olives, dates, and citrus fruits is —  
 1 northwestern United States    2 the Mediterranean region  
 3 southern Africa    4 southern South America ..... ( ) 43
44. Most of the hogs in the United States are raised in —    1 the West  
 2 the North Central states    3 New England    4 the Gulf states .... ( ) 44
45. A country whose climate is strongly influenced by an ocean current is —  
 1 Argentina    2 Italy    3 Australia    4 Great Britain ..... ( ) 45
46. The largest body of fresh water in the Eastern Hemisphere is —  
 1 Lake Victoria    2 Lake Titicaca    3 Lake Geneva    4 Lake Chad ( ) 46
47. The Dutch farmer is much concerned with —  
 1 irrigation problems    2 poor soil    3 drainage problems  
 4 farm machinery ..... ( ) 47
48. The natives of the Andes are —  
 1 Spanish and Indians    2 Negroes and Whites  
 3 Negroes and Indians    4 French and Indians ..... ( ) 48
49. The coastal area of South America that has almost no rain is found in —  
 1 Chile    2 Venezuela    3 Uruguay    4 Colombia ..... ( ) 49
50. Mexico leads the world in the mining of —  
 1 gold    2 tin    3 silver    4 copper ..... ( ) 50
51. The Pyrenees Mountains separate France from —  
 1 Belgium    2 Germany    3 Spain    4 Italy ..... ( ) 51
52. A vessel from England going through the Suez Canal would most probably have in its cargo —  
 1 wheat    2 sugar    3 cotton cloth    4 raw wool ..... ( ) 52
53. Cattle ranches in Mexico are located principally in the —  
 1 south    2 north    3 east    4 west ..... ( ) 53
54. The part of India that is most densely populated is the —  
 1 south    2 center    3 west    4 northeast ..... ( ) 54
55. In Haiti and the Dominican Republic the population is almost entirely —  
 1 Negro    2 British Indian and Negro  
 3 American Indian and Negro    4 of French and Spanish descent .... ( ) 55
56. The climate of Hungary resembles that of —  
 1 southeastern Alaska    2 Florida    3 Nevada    4 Nebraska ..... ( ) 56
57. Nearly all the emeralds mined in the world come from —  
 1 South Africa    2 Venezuela    3 Colombia    4 Spain ..... ( ) 57
58. Which of the following cities of the U.S.S.R. is nearest a sea?  
 1 Moscow    2 Leningrad    3 Kiev    4 Stalingrad ..... ( ) 58

**STOP!**

## TEST 9. SCIENCE

**DIRECTIONS.** After each question there are four answers, only *one* of which is right. In the parentheses after each question put the number of the right answer.

**SAMPLE.** An animal with fur is the —

1 dog    2 robin    3 fish    4 turtle.....(    )

1. The sun gives us light and —  
1 water    2 oxygen    3 heat    4 air.....(    ) 1
2. An animal that protects itself by running quickly from its enemies is the —  
1 tortoise    2 deer    3 skunk    4 opossum.....(    ) 2
3. A young frog is called a —  
1 nymph    2 tadpole    3 salamander    4 toad.....(    ) 3
4. The earth is a —  
1 star    2 planet    3 sun    4 asteroid.....(    ) 4
5. The leaves of willow trees are —    1 long and narrow  
2 smooth-edged    3 rounded between lobes    4 palmately veined... (    ) 5
6. Electricity is sent to places where it is needed by —  
1 pipes    2 wires    3 motors    4 radios.....(    ) 6
7. Frogs lay their eggs in —  
1 swift water    2 sandy soil    3 gardens    4 ponds.....(    ) 7
8. The skunk's chief protection from his enemies is his —  
1 scent bag    2 courage    3 size    4 hidden home.....(    ) 8
9. The hides of animals are made into —  
1 wool    2 hemp    3 leather    4 jute.....(    ) 9
10. Magnets attract —  
1 glass    2 rubber    3 iron    4 paper.....(    ) 10
11. A simple machine used to lift loads high up in the air is the —  
1 axle    2 wedge    3 belt    4 pulley.....(    ) 11
12. Natural rubber is made from —  
1 latex    2 wood    3 silk    4 coal.....(    ) 12
13. When water seems to disappear, it —  
1 condenses    2 dissolves    3 evaporates    4 liquefies.....(    ) 13
14. Squirrels hide nuts in the —  
1 spring    2 summer    3 winter    4 fall.....(    )
15. Air is chiefly made up of nitrogen and —  
1 chlorine    2 carbon monoxide    3 hydrogen    4 oxygen.....(    ) 15
16. A snake is —  
1 a reptile    2 a mammal    3 a shellfish    4 an amphibian.....(    ) 16

17. Plants are given an early start in the spring by starting them in flats  
and then — 1 transplanting 2 grafting 3 pruning 4 cultivating ( ) 17
18. Roots — 1 keep plants cool 2 make sugar  
3 hold plants up 4 take in water..... ( ) 18
19. A heavenly body that seems to change its shape from day to day is  
the — 1 moon 2 sun 3 Venus 4 Mars..... ( ) 19
20. For water to be safe to drink, it must be free from —  
1 minerals 2 earthy matter 3 harmful bacteria 4 color..... ( ) 20
21. The moon shines by — 1 light from Jupiter  
2 reflected sunlight 3 its own light 4 starlight..... ( ) 21
22. The earth travels around the sun once in a —  
1 day and night 2 month 3 season 4 year..... ( ) 22
23. Buds grow from —  
1 stems 2 fruits 3 roots 4 flowers..... ( ) 23
24. The cause of tuberculosis is a — 1 lack of vitamin A  
2 faulty diet 3 disease germ 4 lack of insulin..... ( ) 24
25. The best soil for gardening is —  
1 loam 2 clay 3 sand 4 shale..... ( ) 25
26. A fire will go out if it lacks —  
1 carbon dioxide 2 oxygen 3 hydrogen 4 nitrogen..... ( ) 26
27. Water is a compound of hydrogen and —  
1 ozone 2 argon 3 oxygen 4 nitrogen..... ( ) 27
28. The yellow dust bees gather from flowers is —  
1 wax 2 pollen 3 nectar 4 fine seeds..... ( ) 28
29. Stars give light because they are —  
1 hot 2 dense 3 large 4 old..... ( ) 29
30. Constellations move across the sky during the night because the —  
1 earth turns on its axis 2 stars move  
3 earth moves in its orbit 4 sun moves..... ( ) 30
31. An owl eats —  
1 leaves 2 birds' eggs 3 mice 4 roots..... ( ) 31
32. A crane's bill is suited for — 1 sucking nectar  
2 boring holes 3 tearing meat 4 spearing fish..... ( ) 32
33. Ants live —  
1 alone 2 in colonies 3 in pairs 4 in flocks..... ( ) 33
34. Forests at the headwaters of streams — 1 cause rapid melting of snow  
2 change the path of storms 3 cause floods 4 prevent floods..... ( ) 34
35. The pistil of a flower catches —  
1 bees 2 pollen 3 crab spiders 4 anthers..... ( ) 35

36. The waste that is removed through the lungs is —  
 1 nitrogen    2 salt    3 carbon dioxide    4 oxygen.....(    ) 36
37. Beebread is made from —  
 1 shreds of bark    2 sticky gums    3 pollen    4 honeydew.....(    ) 37
38. Bacteria are one-celled —  
 1 plants    2 animals    3 molds    4 yeasts.....(    ) 38
39. All living animals —  
 1 grow, work, and rest    2 breathe, eat, and excrete  
 3 eat, digest, and move about    4 see, hear, and sleep.....(    ) 39
40. Places that have a rainy season and a dry season are located, in general —  
 1 in the far north    2 within the tropic zones  
 3 along the equator    4 near the Antarctic Circle.....(    ) 40
41. To burn food, the body needs —  
 1 oxygen    2 air    3 carbon dioxide    4 hydrogen.....(    ) 41
42. The number of known planets in our solar system is —  
 1 seven    2 eight    3 nine    4 ten.....(    ) 42
43. The fibers of wool make warm clothing because they —  
 1 shed water    2 are heavy    3 are smooth    4 hold air.....(    ) 43
44. Evidences of ancient life are called —  
 1 ores    2 fossils    3 skeletons    4 sediments.....(    ) 44
45. The part of the body that is just below the chest is the —  
 1 abdomen    2 thorax    3 pancreas    4 liver.....(    ) 45
46. The grains of rock that make up clay soils are —  
 1 coarse    2 fine    3 shiny    4 sandy.....(    ) 46
47. The earth's axis is —  
 1 round    2 tilted    3 oval    4 curved.....(    ) 47
48. The first scientist to state the law of gravity was —  
 1 Galileo    2 Newton    3 Copernicus    4 Franklin.....(    ) 48
49. Soft water is free from —  
 1 gases    2 disease germs    3 dissolved minerals    4 soil.....(    ) 49
50. The vessels that carry blood away from the heart are —  
 1 kidneys    2 capillaries    3 veins    4 arteries.....(    ) 50
51. Meteors burn as they pass through air because of —  
 1 friction    2 electricity    3 magnetism    4 ozone.....(    ) 51
52. The stone icicles that hang from the roof of a limestone cave are —  
 1 stalactites    2 stalagmites    3 fossils    4 petrifications.....(    ) 52

**STOP!**

## TEST 10. SPELLING

- |           |           |
|-----------|-----------|
| 1. _____  | 26. _____ |
| 2. _____  | 27. _____ |
| 3. _____  | 28. _____ |
| 4. _____  | 29. _____ |
| 5. _____  | 30. _____ |
| 6. _____  | 31. _____ |
| 7. _____  | 32. _____ |
| 8. _____  | 33. _____ |
| 9. _____  | 34. _____ |
| 10. _____ | 35. _____ |
| 11. _____ | 36. _____ |
| 12. _____ | 37. _____ |
| 13. _____ | 38. _____ |
| 14. _____ | 39. _____ |
| 15. _____ | 40. _____ |
| 16. _____ | 41. _____ |
| 17. _____ | 42. _____ |
| 18. _____ | 43. _____ |
| 19. _____ | 44. _____ |
| 20. _____ | 45. _____ |
| 21. _____ | 46. _____ |
| 22. _____ | 47. _____ |
| 23. _____ | 48. _____ |
| 24. _____ | 49. _____ |
| 25. _____ | 50. _____ |

No. right..... Stand. score..... Gr. equiv..... Age equiv.....



Name.....Date.....19..  
 Teacher.....Grade.....School.....  
 City.....County.....State.....

# INDIVIDUAL PROFILE CHART

METROPOLITAN ACHIEVEMENT TESTS: INTERMEDIATE BATTERY — COMPLETE

★	Test 1 READ- ING	Test 2 VOCAB- ULARY	Test 3 ARITH. FUND.	Test 4 ARITH. PROB.	Test 5 ENG- LISH	Test 6 LITER- ATURE	Test 7 HIST. & CIVICS	Test 8 GEOG- RAPHY	Test 9 SCI- ENCE	Test 10 SPELL- ING	AVE. ACH'T	★	†
14-10												10.0	
14-9													
14-8													
14-7													
14-6													
14-5												9.5	
14-4													
14-3													
14-2													
14-1													
14-0												9.0	
13-11													
13-10													
13-9													
13-8													
13-7												8.5	
13-6													
13-5													
13-4													
13-3													
13-2												8.0	
13-1													
13-0													
12-11													
12-10													
12-9												7.5	
12-8													
12-7													
12-6													
12-5													
12-4												7.0	
12-3													
12-2													
12-1													
12-0													
11-11												6.5	
11-10													
11-9													
11-8													
11-7												6.0	
11-6													
11-5													
11-4													
11-3													
11-2													
11-1												5.5	
11-0													
10-11													
10-10													
10-9													
10-8												5.0	
10-7													
10-6													
10-5													
10-4													
10-3												4.5	
10-2													
10-1													
10-0													
9-11												4.0	
9-10													
9-9													
9-8													
9-7													
9-6													
9-5												3.5	
9-4													
9-3													
9-2													
9-1													
9-0												3.0	

★ These two scales are independent. Only one should be used at one time.  
 In plotting this chart, put an X in the box above the scale which is to be used.

† An additional scale is provided here in order to make it possible to plot the chart in terms of norms other than those of age or grade.

The Profile Chart is designed to furnish a graphic picture of the achievement of an individual pupil as revealed by his test scores. In plotting the equivalents (grade, age, or other type), open the test booklet and lay it flat so that both the title page and the Profile Chart are in view. Plot the equivalent of each test score on the proper stave and join these points to make the profile.

# PINTNER GENERAL ABILITY TESTS PRIMAL SERIES

## Pintner-Cunningham Primary Test Form A

Chron. Age	
Mental Age	
IQ	

By **RUDOLF PINTNER, Ph.D.**  
Professor of Educational Psychology, Teachers College, Columbia University

**BESS V. CUNNINGHAM, Ph.D.**  
Professor of Education, University of Toledo

and **WALTER N. DUROST, Ph.D.**  
Formerly Research Associate, Institute of School Experimentation  
Teachers College, Columbia University

Prim.  
**A**  
(Verbal)

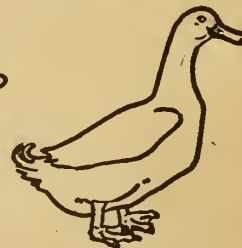
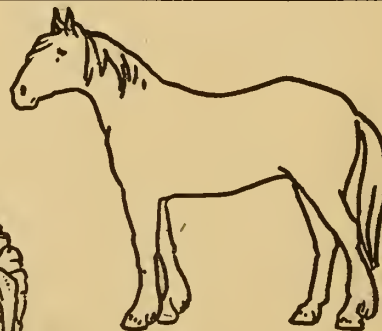
### For Kindergarten and First and Second Grades

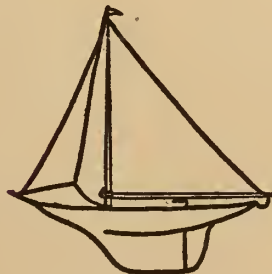
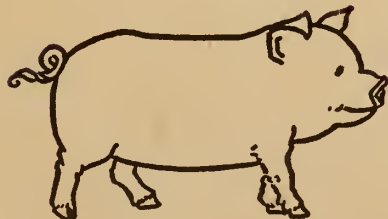
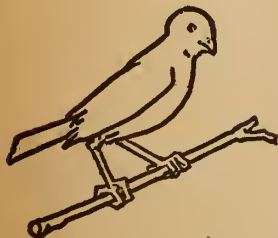
Name.....  
Age..... years..... months. Date of birth.....  
Grade..... Teacher.....  
Date of test..... 19.... Examiner.....  
School.....  
City..... State.....

TEST	SCORE
1	
2	
3	
4	
5	
6	
7	
Total	

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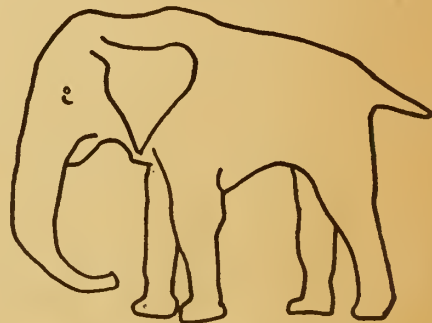
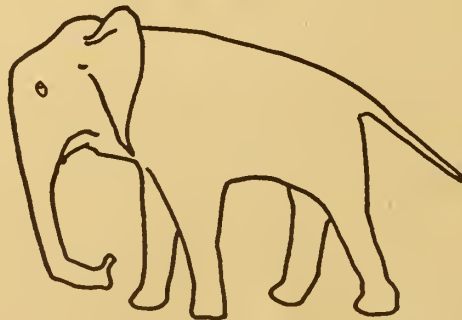
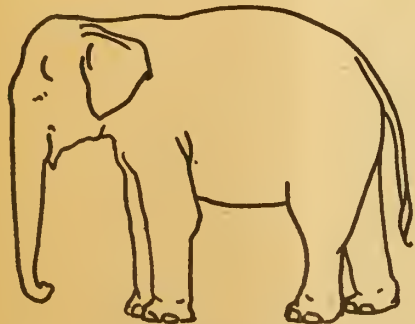
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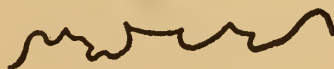


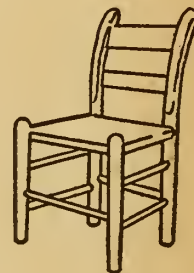
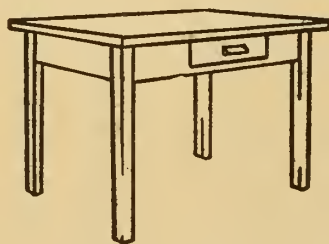
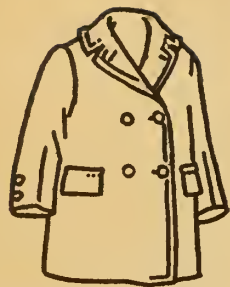
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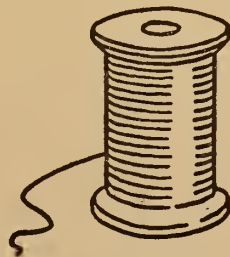
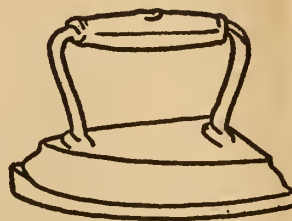
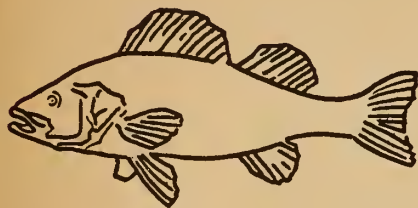


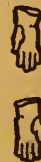
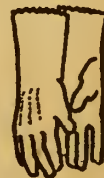
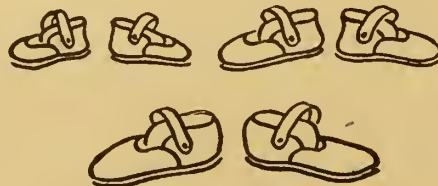




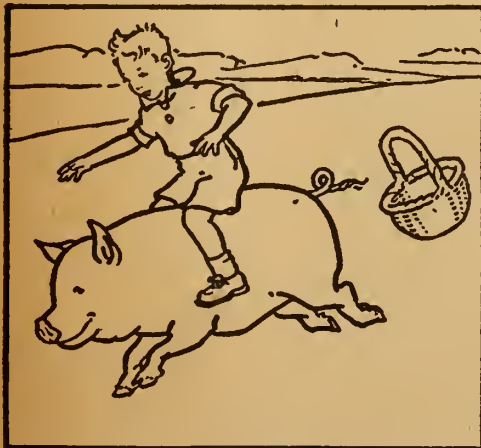
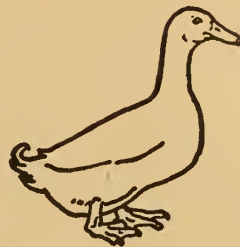
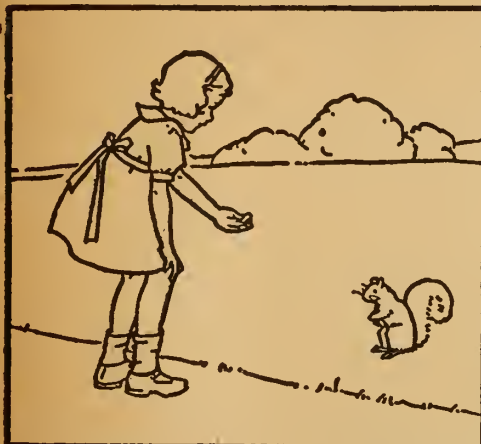






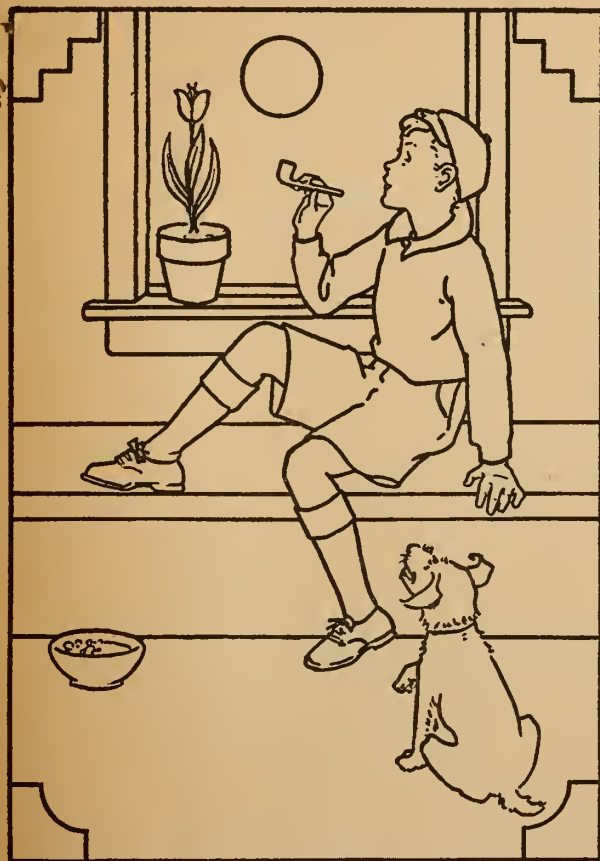


Score.....

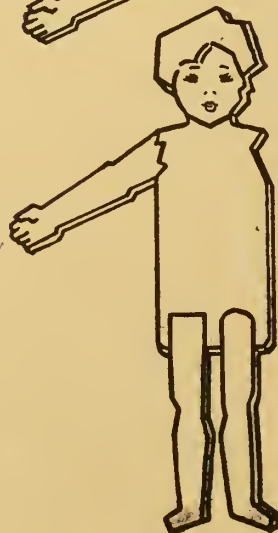
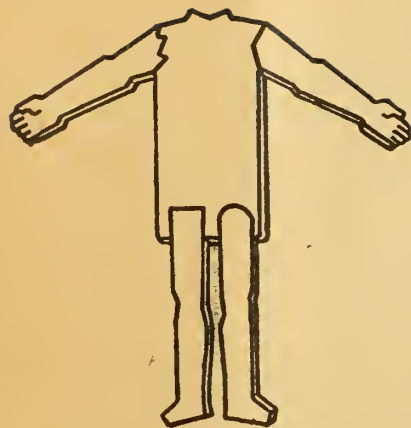




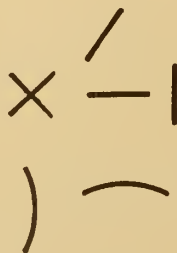
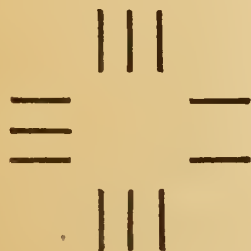
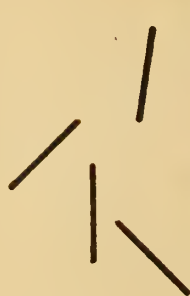




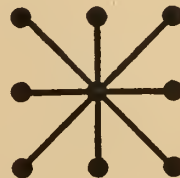
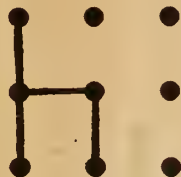
Total number right..... Total number wrong..... Score ( $\frac{R-W}{9}$ ).....

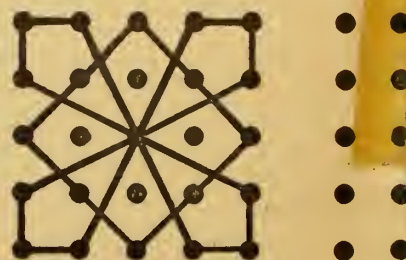
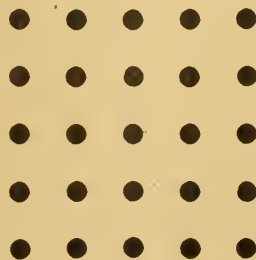
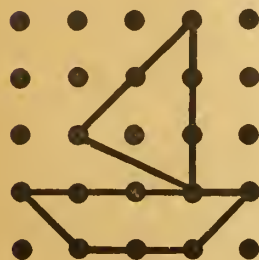
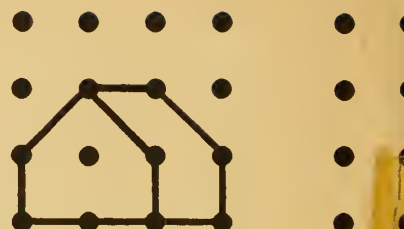
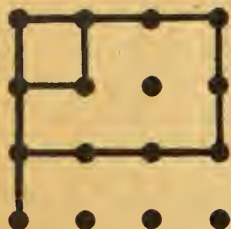












Score.....

# Pintner-Durost Elementary Test

## Scale 1: Form A

By RUDOLF PINTNER, Ph.D.

Professor of Educational Psychology, Teachers College, Columbia University

and WALTER N. DUROST, Ph.D.

Formerly Research Associate, Institute of School Experimentation  
Teachers College, Columbia University

*Elem.*

**1A**

*(Verbal)*

### *Picture Content*

Name..... Grade.....

Age....years....months      Date of birth.....

Sex..... Teacher.....

Date of test.....19....

School.....

City..... State.....

Examiner.....

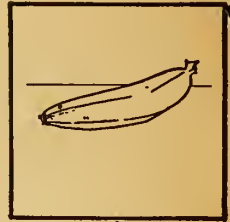
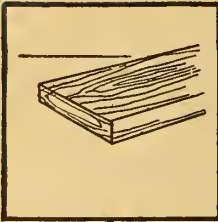
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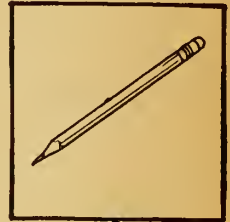
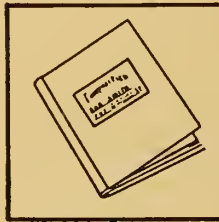
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# TEST 1. VOCABULARY

A.



B.



1.



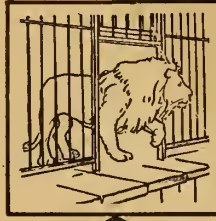
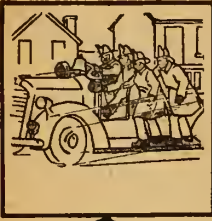
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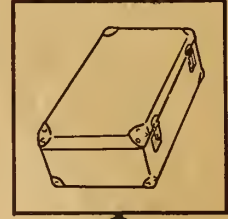
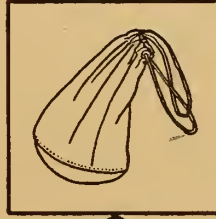
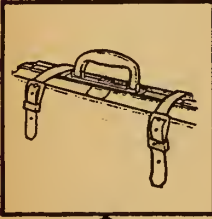
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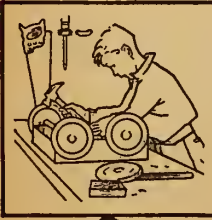
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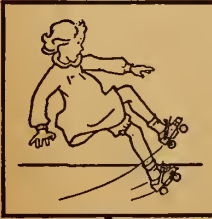
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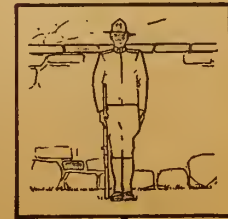
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7.



8.

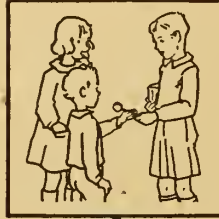




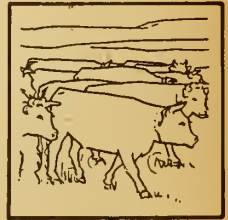
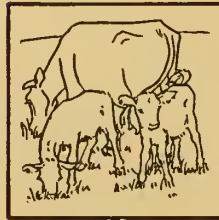
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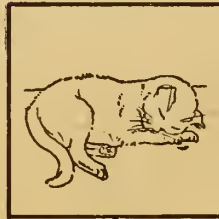
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11.



12.



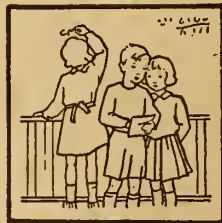
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14.



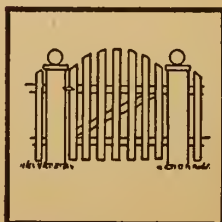
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16.



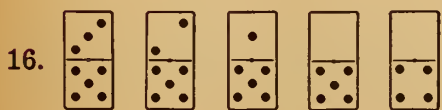
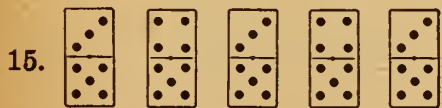
17.



Raw score	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Stan. score	56	60	64	68	75	83	88	92	101	108	114	121	128	135	143	154	171

## TEST 2. NUMBER SEQUENCE

A.        B.        1.        2.        3.        4.        5.        6.        7.        8.        9.        10.        

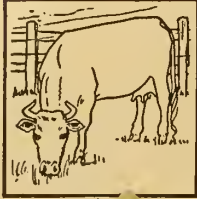


RAW SCORE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Stan. score	87	96	103	111	117	120	123	126	129	133	135	138	142	148	153	158	165
RAW SCORE	18	19															
Stan. score	174	180															

# TEST 3. ANALOGIES



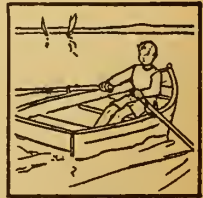
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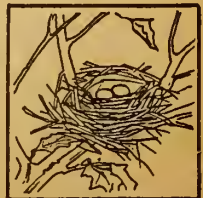
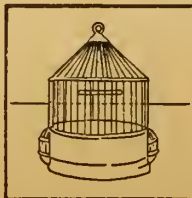
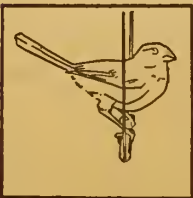
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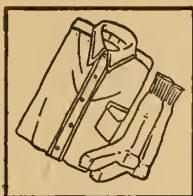




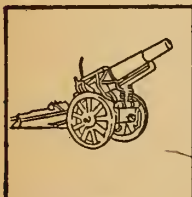
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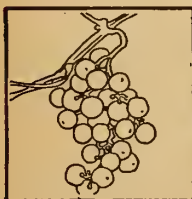
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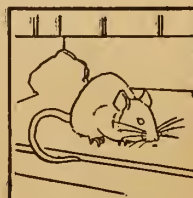
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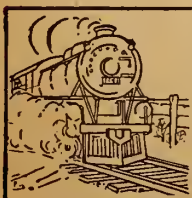
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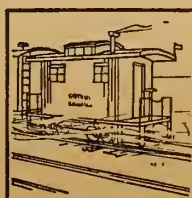
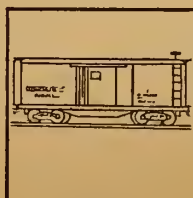
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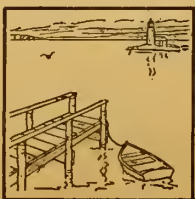
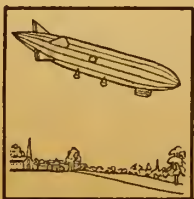
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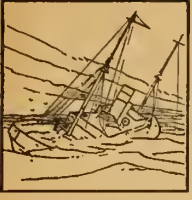
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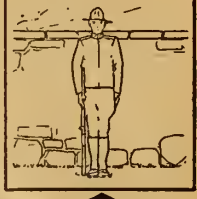
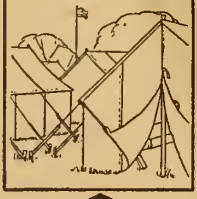
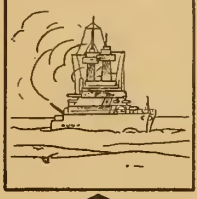
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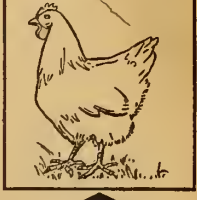
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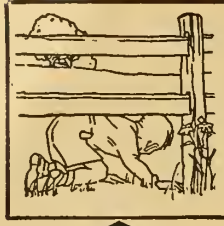
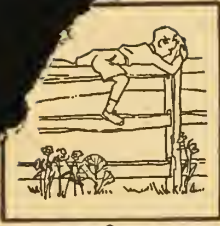


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RAW SCORE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Stan. score	62	69	78	87	95	102	108	112	116	120	125	130	135	142	149	157	165

# TEST 4. OPPOSITES



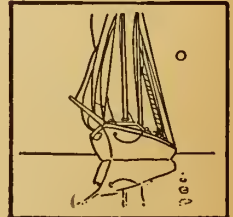
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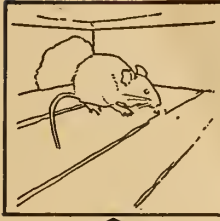
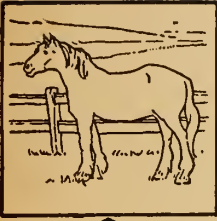


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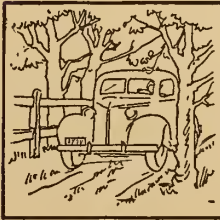
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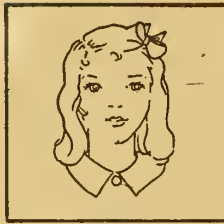


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12.



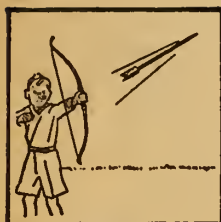
13.



14.



15.



16.



RAW SCORE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Stan. score	81	87	92	95	98	100	102	103	104	106	108	114	120	128	141	167

# 5. LOGICAL SELECTION



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2.	Yes	No
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3.	Yes	No
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11.	Yes	No
	<input type="radio"/>	<input type="radio"/>
12.	Yes	No
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14.	Yes	No
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15.	Yes	No
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22.	Yes	No
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23.	Yes	No
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24.	Yes	No
	<input type="radio"/>	<input type="radio"/>
25.	Yes	No
	<input type="radio"/>	<input type="radio"/>
26.	Yes	No
	<input type="radio"/>	<input type="radio"/>



5.	Yes	No
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6.	Yes	No
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10.	Yes	No
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16.	Yes	No
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17.	Yes	No
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18.	Yes	No
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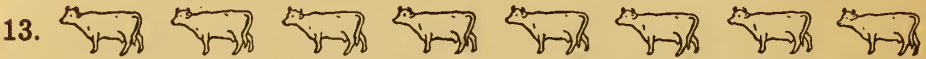
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28.	Yes	No
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29.	Yes	No
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30.	Yes	No
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31.	Yes	No
	<input type="radio"/>	<input type="radio"/>
32.	Yes	No
	<input type="radio"/>	<input type="radio"/>

RAW SCORE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Stan. score	58	59	60	61	64	68	70	72	74	76	78	80	83	89	93	98	102	105	108	111	118
RAW SCORE	22	23	24	25	26	27	28	29	30	31	32										
Stan. score	121	128	134	140	148	156	164	170	178	184	190										

# TEST 6. ARITHMETIC READING







3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
64	70	76	82	89	96	103	111	120	129	139	150	161	170	



## INDIVIDUAL PROFILE CHART

Standard Score	TEST						Mean Standard Score
	1	2	3	4	5	6	
180	+	+	+	+	+	+	
170	+	+	+	+	+	+	
160	+	+	+	+	+	+	
150	+	+	+	+	+	+	
140	+	+	+	+	+	+	
130	+	+	+	+	+	+	
120	+	+	+	+	+	+	
110	+	+	+	+	+	+	
100	+	+	+	+	+	+	
90	+	+	+	+	+	+	
80	+	+	+	+	+	+	
70	+	+	+	+	+	+	
60	+	+	+	+	+	+	
<u>Scores</u> →							



# PINTNER GENERAL ABILITY TESTS VERBAL SERIES

## Pintner Intermediate Test: Form A

By RUDOLF PINTNER

Professor of Education, Teachers College, Columbia University

MEDIAN SCORE	
MA	
IQ	

Inter.  
**A**  
(Verbal)

Name..... Grade..... Boy... Girl...

Date of birth: Month..... Day..... Year..... How old are you now?...

School..... City..... State.....

Date of examination..... Name of examiner.....

Do not write anything more. Do not turn the page. Wait until you are told to begin.

*Read the following directions carefully.*

You are to answer all the questions in this booklet in the same general way. You are to choose the *one* of the five possible answers which you think is right and then show your choice by filling in one of the answer spaces. You will fill in that answer space which has the same number or letter that your chosen answer has.

In marking your answer you are to fill in the space between the pair of dotted lines as black as you can, so that your answer can be easily seen.

Study the sample questions below, which are correctly marked, until you are sure that you know just what to do.

### Samples.

A. Choose the numbered word that means the same as the first word (the one without a number).  
closed — 1 far 2 shut 3 open 4 long 5 up .....A

1	2	3	4	5
⋮	■	⋮	⋮	⋮

B. Choose the numbered word that tells what the first word (the one without a number) always has.  
A table always has — 1 flowers 2 tablecloth 3 legs 4 varnished top 5 vase ....B

1	2	3	4	5
⋮	⋮	■	⋮	⋮

C. From the numbers with letters in front of them choose the one which should come next in the series of numbers given first.

1 2 3 4 5 6 — a 8 b 7 c 10 d 9 e 11 .....C

a	b	c	d	e
⋮	■	⋮	⋮	⋮

D. Choose the best answer.

Why do we use a knife? Because —

1. it looks bright. 2. it can be used to cut things. 3. it can be used to eat soup.  
4. it is hard. 5. it is easy to hold. ....D

1	2	3	4	5
⋮	■	⋮	⋮	⋮

E. Choose the word that does not belong with the others.

1 horse 2 dog 3 violet 4 pig 5 camel .....E

1	2	3	4	5
⋮	⋮	■	⋮	⋮

F. Choose the word that means just the *opposite* of the first word (the one without a number).

up — 1 high 2 bottom 3 upper 4 down 5 far .....F

1	2	3	4	5
⋮	⋮	⋮	■	⋮

G. Choose the word that is related to the third word in the same way as the second is related to the first.

Hat is to head as shoe is to what?

hat — head::shoe — 1 hand 2 foot 3 neck 4 sky 5 glove .....G

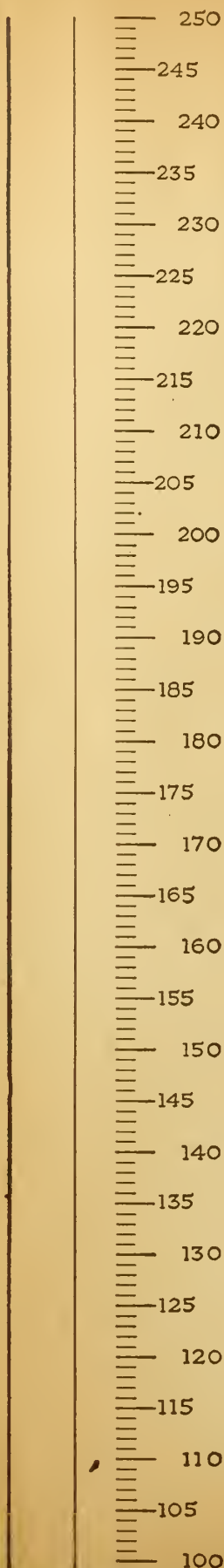
1	2	3	4	5
⋮	■	⋮	⋮	⋮

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MEDIA STANDARD  
SCORE SCALE<sup>1</sup>

TEST

INDIVIDUAL PROFILE CHART<sup>1</sup>

Standard Score	TEST								Median Standard Score
	1	2	3	4	5	6	7	8	
250									
240									
230									
220									
210									
200									
190									
180									
170									
160									
150									
140									
130									
120									
110									
100									
Scores →									

<sup>1</sup> Use of the Profile Chart is optional. For a discussion of its value and its limitations see the Manual for Interpreting.

MENTAL AGE..... PERCENTILE RANK.....

IQ..... VARIABILITY RATING.....

COMMENTS :

<sup>1</sup> See Manual for Interpreting.



## TEST 1. VOCABULARY

**Directions.** Look at the first word in the line. Find the other word in the line which means the same or most nearly the same. Mark the answer space in the margin which is numbered the same as your choice.

**Sample.** This sample is answered correctly:

closed — 1 far 2 shut 3 open 4 long 5 up .....

The correct answer is "shut," which is number 2; so the second answer space is marked.

Do the same for the remaining words. Be sure to mark the answer space which is numbered the same as your answer.

- |             |          |             |           |             |               |   |
|-------------|----------|-------------|-----------|-------------|---------------|---|
| 1. still —  | 1 build  | 2 quiet     | 3 heavy   | 4 best      | 5 large ..... | 1 |
| 2. pair —   | 1 party  | 2 two       | 3 yard    | 4 list      | 5 bag .....   | 2 |
| 3. great —  | 1 now    | 2 use       | 3 large   | 4 fear      | 5 run .....   | 3 |
| 4. start —  | 1 now    | 2 soon      | 3 end     | 4 begin     | 5 star .....  | 4 |
| 5. cargo —  | 1 boat   | 2 hem       | 3 draught | 4 vehicle   | 5 load .....  | 5 |
| 6. queer —  | 1 sick   | 2 stupid    | 3 idiot   | 4 odd       | 5 man .....   | 6 |
| 7. chess —  | 1 cheese | 2 king      | 3 game    | 4 play      | 5 check ..... | 7 |
| 8. clutch — | 1 nest   | 2 grasp     | 3 exploit | 4 flit      | 5 cane .....  | 8 |
| 9. blond —  | 1 polite | 2 dishonest | 3 fair    | 4 dauntless | 5 coy .....   | 9 |

- |                    |              |             |            |              |                     |    |
|--------------------|--------------|-------------|------------|--------------|---------------------|----|
| 10. mischievous —  | 1 black      | 2 good      | 3 soft     | 4 nice       | 5 naughty .....     | 10 |
| 11. refuse —       | 1 object     | 2 accept    | 3 delay    | 4 reject     | 5 value .....       | 11 |
| 12. cascade —      | 1 hat        | 2 firmament | 3 box      | 4 disaster   | 5 waterfall .....   | 12 |
| 13. arrive —       | 1 answer     | 2 rival     | 3 enter    | 4 come       | 5 force .....       | 13 |
| 14. bade —         | 1 gaze       | 2 tool      | 3 ordered  | 4 fetched    | 5 wait .....        | 14 |
| 15. combat —       | 1 dismay     | 2 club      | 3 comb     | 4 fight      | 5 expedition .....  | 15 |
| 16. ballet —       | 1 feast      | 2 banquet   | 3 carnival | 4 ball       | 5 dance .....       | 16 |
| 17. conspire —     | 1 breathe    | 2 rely      | 3 die      | 4 plot       | 5 outrun .....      | 17 |
| 18. rational —     | 1 reason     | 2 eatable   | 3 food     | 4 reasonable | 5 ration .....      | 18 |
| 19. bellicose —    | 1 mighty     | 2 warlike   | 3 good     | 4 peaceful   | 5 beautiful .....   | 19 |
| 20. glossary —     | 1 dictionary | 2 metal     | 3 powder   | 4 lingual    | 5 polish .....      | 20 |
| 21. cloistered —   | 1 secluded   | 2 miniature | 3 bunched  | 4 arched     | 5 malady .....      | 21 |
| 22. asseveration — | 1 partition  | 2 oath      | 3 pluck    | 4 cleverness | 5 continuance ..... | 22 |
| 23. meticulous —   | 1 tiny       | 2 finical   | 3 partial  | 4 spacious   | 5 melodic .....     | 23 |

(Turn to page 5.)

RAW SCORE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Standard score	108	113	118	122	126	130	134	140	144	148	153	158	163	169	176	182	188	196	204	212	219	227	



8. The sum of two numbers is 100. One of the numbers is 35. What is the other number?  
 a 135    b 3500    c  $2\frac{5}{6}$     d 65    e 30..... 8
9. Howard gathered 20 pounds of apples. He sold them at 6 cents a pound and then spent all the money for oranges at 5 cents each. How many oranges did he buy?  
 a 500 oranges    b 9 oranges    c 175 oranges    d 30 oranges    e 24 oranges... 9
10. At 3 for 25 cents what is the cost of 4 dozen oranges?  
 a \$1.20    b \$1.00    c \$3.00    d \$4.00    e \$1.75..... 10
11. If  $3\frac{1}{3}$  yards of ribbon cost 20 cents, how much will 10 yards cost?  
 a 20 cents    b  $33\frac{1}{3}$  cents    c 60 cents    d \$2.00    e 30 cents..... 11
12. A quart of milk costs 9 cents. How much would a gallon of milk cost?  
 a 36 cents    b 27 cents    c 30 cents    d 18 cents    e 45 cents..... 12
13. A man bought a house for \$8500. After spending \$500 for repairs, he sold it for \$9500. How much did he gain?  
 a \$1000    b \$500    c \$1500    d \$750    e \$250..... 13
14. John sleeps 64 hours a week, studies at school 42 hours, works 23 hours, and plays 39 hours. What per cent of the time does he give to his studies?  
 a 25%    b 168%    c 44%    d 3.8%    e 34%..... 14
15. Three men, A, B, and C, owned all the stock of a certain company worth \$100,000. A owned 250 shares, B owned 337 shares, and C owned 413 shares. What was the price of one share?  
 a \$1000    b \$100    c \$400    d \$500    e \$174..... 15
16. If  $\frac{3}{4}$  of Mr. Jones's money equals  $\frac{1}{2}$  of Mr. Smith's money and together they have \$80, how much has Mr. Jones?  
 a \$40    b \$53.33    c \$30    d \$32    e \$27..... 16

RAW SCORE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Standard score	98	107	115	120	125	129	135	140	146	152	159	166	176	185	196	207

For each statement, find the thing it is most likely to have. Then mark the answer space in the margin which is numbered the same.

1	2	3	4	5
...	...	...	...	...

- [illegible]

2➡

2➡

- |                    |              |                   |               |               |                     |
|--------------------|--------------|-------------------|---------------|---------------|---------------------|
| 11. A school —     | 1 playground | 2 books           | 3 maps        | 4 teacher     | 5 bus... 11         |
| 12. A garden —     | 1 tools      | 2 flowers         | 3 soil        | 4 vegetables  | 5 benches 12        |
| 13. A capitalist — | 1 factories  | 2 wealth          | 3 land        | 4 stores      | 5 machines ... 13   |
| 14. A ship —       | 1 engines    | 2 guns            | 3 sails       | 4 hull        | 5 flag ..... 14     |
| 15. A policeman —  | 1 a cap      | 2 duty            | 3 club        | 4 uniform     | 5 motorcycle ... 15 |
| 16. Direction —    | 1 angle      | 2 a moving object | 3 an opposite | 4 speed       | 5 movement 16       |
| 17. A contract —   | 1 papers     | 2 oath            | 3 terms       | 4 stamp       | 5 penalty ... 17    |
| 18. A mirror —     | 1 stand      | 2 frame           | 3 decorations | 4 reflection  | 5 glass 18          |
| 19. Algebra —      | 1 symbols    | 2 equations       | 3 problems    | 4 numbers     | 5 digits 19         |
| 20. A cube —       | 1 8 surfaces | 2 8 corners       | 3 4 surfaces  | 4 6 corners   | 5 4 sides 20        |
| 21. A landlord —   | 1 houses     | 2 machinery       | 3 tenants     | 4 real estate | 5 income 21         |
| 22. An employer —  | 1 factories  | 2 warehouses      | 3 supervision | 4 trucks      | 5 foremen 22        |

[illegible]

(Turn to page 7.)

RAW SCORE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Standard score	99	106	112	118	124	129	134	139	144	148	154	159	164	169	174	180	186	192	198	206	215	223

## TEST 8. ARITHMETIC REASONING

**Directions.** First solve each of the problems below, and if your answer is correct you will find it among the five possible answers given. Mark the answer space in the margin which is below the letter corresponding to your answer.

**Sample.** 4 pennies and 5 pennies are how many pennies?

a 10    b 9    c 7    d 8    e 11 .....

a	b	c	d	e
	■			

In our sample the correct answer is "9," which is answer "b"; so a mark has been made in the answer space under "b" in the margin.

If you cannot solve a problem, go right on to the next one.

Do your figuring in the space between the problems or on a separate sheet of paper.

1. 4 and 7 are how much?

a 3    b 15    c 28    d 21    e 11 ..... 1

a	b	c	d	e

2. One bus holds 42 men; four busses hold how many men?

a 38 men    b  $10\frac{1}{2}$  men    c 83 men    d 168 men    e 46 men ..... 2

a	b	c	d	e

8<sup>a</sup>→

←8<sup>a</sup>

3. How many marbles are needed if there are 6 boys and each boy is to get 5 marbles?

a  $1\frac{1}{5}$  marbles    b 11 marbles    c 30 marbles    d  $\frac{5}{6}$  marble    e 1 marble ..... 3

a	b	c	d	e

4. Tom saved \$2.70. How much more must he save to buy a toy automobile for \$4.87?

a \$1.15    b \$7.57    c 17 cents    d \$3.07    e \$2.17 ..... 4

a	b	c	d	e

5. Mr. Jones pays \$60 a month rent for his house. This is how much a year?

a \$72    b \$5    c \$48    d \$500    e \$720 ..... 5

a	b	c	d	e

6. Elsie, Grace, and Helen are going to buy Mary Louise a Christmas present. The present costs 99 cents. How much should each girl pay?

a \$1.02    b \$2.97    c 96 cents    d 33 cents    e 3 cents ..... 6

a	b	c	d	e

A wagon loaded with coal weighs 4952 pounds. The wagon when empty weighs 851 lbs. How much does the coal weigh?

a  $5\frac{3}{4}$  lb.    b 3158 lb.    c 4101 lb.    d 5803 lb.    e 58 lb. .... 7

a	b	c	d	e

(Go right on to page 4.)





# TEST 7. ANALOGIES

Pintner Verbal: Inter med.: A

**Directions.** In the following questions the third word is related to one of the numbered words as the first word is related to the second. Find the correct one of the numbered words, and mark the answer space in the margin which is numbered the same. The sample is answered correctly.

**Sample.** Hat is to head as shoe is to what?

hat - head :: shoe - 1 hand 2 foot 3 neck 4 sky 5 glove.....

1 2 3 4 5  
1 2 3 4 5

1. gun - shoot :: knife - 1 run 2 hat 3 bird 4 sharp 5 cut..... 1

1 2 3 4 5  
1 2 3 4 5

2. uncle - nephew :: aunt - 1 brother 2 sister 3 cousin 4 niece 5 mother 2

1 2 3 4 5  
1 2 3 4 5

3. telephone - hear :: spyglass - 1 shout 2 telegraph 3 see 4 distance 5 lens 3

1 2 3 4 5  
1 2 3 4 5

4. roof - house :: hat - 1 shoe 2 head 3 straw 4 attic 5 warm .. 4

1 2 3 4 5  
1 2 3 4 5

5. tears - sorrow :: laughter - 1 girls 2 joy 3 grin 4 sob 5 grief .. 5

1 2 3 4 5  
1 2 3 4 5

6. egg - bird :: seed - 1 plant 2 shell 3 leaf 4 root 5 feathers... 6

1 2 3 4 5  
1 2 3 4 5

7. cold - ice :: heat - 1 wet 2 cold 3 steam 4 stars 5 dry .. 7

1 2 3 4 5  
1 2 3 4 5

8. lion - animal :: rose - 1 small 2 bird 3 thorn 4 plant 5 red .. 8

1 2 3 4 5  
1 2 3 4 5

9. above - below :: top - 1 spin 2 bottom 3 surface 4 slide 5 down 9

1 2 3 4 5  
1 2 3 4 5

7→

←7

10. locomotive - coal :: automobile - 1 gasoline 2 motorcycle 3 smoke 4 wheels 5 burns 10

1 2 3 4 5  
1 2 3 4 5

11. peninsula - continent :: bay - 1 Massachusetts 2 boats 3 ocean 4 sand 5 pay 11

1 2 3 4 5  
1 2 3 4 5

12. body - food :: engine - 1 wheels 2 motion 3 smoke 4 fire 5 fuel... 12

1 2 3 4 5  
1 2 3 4 5

13. writer - books :: bee - 1 honey 2 hive 3 wasp 4 sting 5 novels... 13

1 2 3 4 5  
1 2 3 4 5

14. behind - late :: before - 1 after 2 early 3 soon 4 dinner 5 alone .. 14

1 2 3 4 5  
1 2 3 4 5

15. Washington - Adams :: first - 1 contrast 2 second 3 best 4 last 5 President 15

1 2 3 4 5  
1 2 3 4 5

16. order - disorder :: peace - 1 guns 2 battle 3 war 4 army 5 explosion 16

1 2 3 4 5  
1 2 3 4 5

17. imitate - copy :: invent - 1 study 2 invention 3 machine 4 new 5 originate 17

1 2 3 4 5  
1 2 3 4 5

18. grass - cattle :: bread - 1 butter 2 flour 3 milk 4 horses 5 man .. 18

1 2 3 4 5  
1 2 3 4 5

19. doctor - patient :: lawyer - 1 nurse 2 hospital 3 court 4 client 5 law .. 19

1 2 3 4 5  
1 2 3 4 5

20. bird - song :: man - 1 woman 2 boy 3 work 4 speech 5 speaks .. 20

1 2 3 4 5  
1 2 3 4 5

21. point - line :: line - 1 pencil 2 dot 3 surface 4 curve 5 solid 21

1 2 3 4 5  
1 2 3 4 5

22. land - wealth :: sun - 1 earth 2 death 3 life 4 moon 5 eclipse... 22

1 2 3 4 5  
1 2 3 4 5

23. truth - falsehood :: pride - 1 fear 2 humility 3 shame 4 honor 5 resignation 23

1 2 3 4 5  
1 2 3 4 5

(Turn to page 6.)

RAW SCORE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Standard score	104	108	112	118	123	127	131	135	139	144	147	151	155	159	163	168	173	178	184	190	197	202	208



# TEST 4. BEST ANSWER

Pintner Verbal: Intermed.: A

Directions. Below are some questions. Five answers are given to each question. You are to look at the answers carefully; then pick the best answer and mark the answer space in the margin which is numbered the same.

Example.

Why do we use a knife? Because —

1. it looks bright.
2. it can be used to cut things.
3. it can be used to eat soup.
4. it is hard.
5. it is easy to hold. ....

1	2	3	4	5
...	■	...	...	...

The second answer, "it can be used to cut things," is the correct one; so the second answer space is marked in the margin.

Do the rest in the same way.

1. Why does a man work? Because he must —

1. earn a living.
2. enjoy himself.
3. gain knowledge.
4. pass the time.
5. support the state. .... 1

1	2	3	4	5
...	...	...	...	...

2. In cities people build very tall buildings because —

1. people like tall buildings to live in.
2. limited appropriate space makes it necessary.
3. it shows that engineers can build them.
4. the air is better higher up.
5. they look grand. .... 2

1	2	3	4	5
...	...	...	...	...

3. "Practice makes perfect" means —

1. Difficulties give way to diligence.
2. Error is always in the rough.
3. Skill comes through experience.
4. It is good to practice.
5. We do not know everything. .... 3

4 →

4 →

1	2	3	4	5
...	...	...	...	...

4. Businessmen want peace because —

1. it encourages trade.
2. they hate soldiers.
3. they can obtain patents.
4. they do not like to fight.
5. they are all lazy. .... 4

1	2	3	4	5
...	...	...	...	...

5. Some canals are built because —

1. they make voyages shorter.
2. boats can go faster.
3. they must be used for fertilizing soil.
4. they provide work for people.
5. they are needed for barges. .... 5

→

1	2	3	4	5
...	...	...	...	...

6. Glass is used for windows because —

1. it keeps the dust out.
2. it lets in the light.
3. it is cheaper than oiled paper.
4. it breaks easily.
5. it can be polished well. .... 6

1	2	3	4	5
...	...	...	...	...

7. "Idle youth, dependent age," means —

1. A young saint, an old devil.
2. A young servingman, an old beggar.
3. As you sow, you shall reap.
4. If you are idle, you may get rich.
5. Most men are dependent in youth and in old age. .... 7

1	2	3	4	5
...	...	...	...	...

(Turn to page 11.)

# TEST 6. OPPOSITES

Pintner Verbal: Intermed.: A

**Directions.** In each of the questions below one of the numbered words is the *opposite* or nearly the opposite of the first word in the line (the one without a number). Find the opposite of this word among the numbered answers and mark the answer space in the margin which is numbered the same.

The sample is answered correctly.

**Sample.** up — 1 high 2 bottom 3 upper 4 down 5 far.....

1	2	3	4	5

1. day — 1 light 2 dim 3 sun 4 night 5 moon..... 1
2. bitter — 1 medicine 2 horrid 3 quinine 4 sweet 5 mice ..... 2
3. tall — 1 thin 2 thick 3 building 4 wide 5 short..... 3
4. old — 1 fashionable 2 remote 3 new 4 ancient 5 hat..... 4
5. right — 1 justice 2 wrong 3 bad 4 crime 5 good..... 5
6. cruel — 1 heavy 2 brave 3 clever 4 jolly 5 kind ..... 6
7. top — 1 middle 2 down 3 up 4 bottom 5 below..... 7
8. exit — 1 light 2 go 3 entrance 4 driveway 5 door..... 8
9. distant — 1 view 2 distance 3 China 4 near 5 far..... 9
10. find — 1 penny 2 get 3 keep 4 lost 5 lose..... 10

1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5

6→

←6

11. ancient — 1 musty 2 modern 3 newness 4 old 5 elderly..... 11
12. obey — 1 children 2 orders 3 command 4 soldier 5 officer..... 12
13. idle — 1 vacation 2 idleness 3 ambitious 4 busy 5 energetic .... 13
14. awkward — 1 clumsy 2 graceful 3 neat 4 quick 5 stupid..... 14
15. amateur — 1 unskilled 2 ignorant 3 amateurish 4 professional 5 performance 15
16. brave — 1 weak 2 soldier 3 timid 4 quiet 5 strong ..... 16
17. command — 1 boss 2 duty 3 request 4 order 5 captain..... 17
18. hinder — 1 act 2 help 3 obstruct 4 stop 5 work..... 18
19. joy — 1 happy 2 sad 3 joyous 4 glad 5 sorrow..... 19
20. profuse — 1 plenty 2 less 3 scarcely 4 scanty 5 waste ..... 20
21. honest — 1 bad 2 corrupt 3 thief 4 true 5 stealing..... 21
22. eminent — 1 imminent 2 famous 3 obscure 4 low 5 height..... 22

1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5

(Turn to page 8.)

RAW SCORE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Standard score	106	113	119	122	125	128	131	133	136	139	143	147	152	156	160	165	171	177	185	193	206	219

# TEST 4 — Continued

8. Zeppelins are filled with helium because —
1. helium is used to drive the motors.
  2. helium is lighter than air.
  3. helium is cheaper than gas.
  4. helium has no odor.
  5. helium is used for balloons. .... 8
9. An important reason for making automobile tires of rubber is that rubber —
1. absorbs shocks very well.
  2. is cheaper than wood. →
  3. is easier to obtain.
  4. grows in the tropics.
  5. can be easily replaced. .... 9
10. Bridges are painted in order to —
1. appear clean and neat.
  2. prevent rust and decay.
  3. give idle men work to do.
  4. beautify the country.
  5. lessen the tension. .... 10
11. A balloon rises in the air because —
1. it is filled with air.
  2. it is round and made of rubber.
  3. it weighs less than an equal volume of air.
  4. it is made of heavy rubber.
  5. it is blown by the wind. .... 11
12. Books are usually printed instead of written by hand because —
1. it is easier to read them in print. 4<sup>b</sup> →
  2. no one can write as clearly as we can print. 4<sup>b</sup> →
  3. printing employs more workmen.
  4. writing is old-fashioned.
  5. it is cheaper to print them, if we need many of them .... 12
13. "Your talk is so loud I cannot see what you do" means —
1. Talking prevents one from seeing.
  2. A deluge of words and a drop of sense.
  3. Great cry and little wool.
  4. Great braggers, little doers.
  5. Great talkers always work hard. .... 13
14. "Drop by drop the lake is drained" means —
1. Every man wishes water for his own well.
  2. It is never too late to mend.
  3. Drowning men will catch at a straw.
  4. All's well that ends well.
  5. Many little strokes fell great oaks. .... 14
15. Water is cheap because —
1. it is chemically pure.
  2. it is necessary for life.
  3. it is manufactured easily.
  4. it is plentiful.
  5. it is a good conductor of heat. .... 15
16. Language is considered an important invention because —
1. people can form sentences and words.
  2. it is a rapid, symbolic expression of our ideas. →
  3. it makes us more civilized and human.
  4. it can be easily taught to children.
  5. it can be understood by everybody. .... 16

(Turn over the page and turn the booklet around.)

RAW SCORE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Standard score	99	117	127	136	142	148	153	158	164	168	174	181	188	194	200	207



[illegible]

Do the rest in the same way.

- [illegible]

5➡

←5

- [illegible]

W SCORE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Standard score	108	112	115	118	120	122	125	128	131	135	140	144	148	153	158	162	168	173	180	188	195	203	212

# RECORD BOOKLET — *Form L*

## FOR THE REVISED STANFORD-BINET SCALE

as described in Terman and Merrill's Measuring Intelligence

No. ....  
Series.....

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Name..... Examiner..... C.A.....  
Sex..... Birthdate..... Date..... M.A.....  
School..... Grade..... I.Q.....  
Parent..... Address.....  
Birthplace..... of father..... of mother.....  
Occupation of father..... of mother.....  
Race..... Nationality of descent.....

### TEST BEHAVIOR

<b>Willingness</b>	----- ----- ----- -----	----- ----- ----- -----	----- ----- ----- -----	----- ----- ----- -----
	enthusiastic eagerness	enters actively into task	normal attitude because proper	disagreeable task
				active objection
<b>Self-confidence</b>	----- ----- ----- -----	----- ----- ----- -----	----- ----- ----- -----	----- ----- ----- -----
	extremely self-confident; relies on own ability	rather self-confident	neither distrustful nor entirely self-reliant	inclined to distract own ability
				extremely lacking in self-confidence; constantly distrustful of own ability
<b>Social confidence</b>	----- ----- ----- -----	----- ----- ----- -----	----- ----- ----- -----	----- ----- ----- -----
	perfectly assured in personal contacts	rather confident	normal for age	rather shy
				shy, reserved, reticent
<b>Attention</b>	----- ----- ----- -----	----- ----- ----- -----	----- ----- ----- -----	----- ----- ----- -----
	completely absorbed by task	little interference from distracting stimuli	normal; attention to outside stimuli does not impair efficiency	easily distracted by extraneous stimuli or by own ideas, but returns readily to task
				abstracted; difficult to get and hold attention

### TEST SUMMARY

Yrs.                      Mos.	Yrs.                      Mos.	Yrs.                      Mos.
II.....	VI.....	XIII.....
II-6.....	VII.....	XIV.....
III.....	VIII.....	A.A.....
III-6.....	IX.....	S.A. I.....
IV.....	X.....	S.A. II.....
IV-6.....	XI.....	S.A. III.....
V.....	XII.....	.....
Time.....		Total.....

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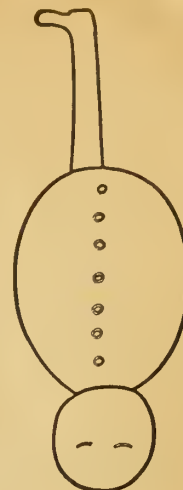
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**YEAR III** (6 tests, 1 month each; or 4 tests, 1½ months each)

- ☐ 1. Stringing beads (4+) (2 min.) No. strung.....
- ☐ 2. \*Picture vocabulary (same as II, 5; II-6, 4; III-6, 2; IV, 1) (12+)
- ☐ 3. \*Block building: Bridge
- ☐ 4. \*Picture memories (1+) a) b)
- ☐ 5. Copying a circle (1+) a) b) c)
- ☐ 6. \*Repeating 3 digits (1+)
- a) 6-4-1..... b) 3-5-2..... c) 8-3-7.....

Alternate. Three-hole form board: Rotated (same as II-6, 6) (2+)

Mos. ....

**YEAR III-6** (6 tests, 1 month each; or 4 tests, 1½ months each)

- ☐ 1. \*Obeying simple commands (3+)
- a) b) c)
- ☐ 2. \*Picture vocabulary (same as II, 5; II-6, 4; III, 2; IV, 1) (15+)
- ☐ 3. Comparison of sticks (3 of 3, or 5 of 6)
- a) b) c) d) e)
- ☐ 4. Response to pictures I (2+)
- a) Dutch Home
- b) Canoe
- c) Postoffice
- ☐ 5. \*Identifying objects by use (same as II-6, 1) (5+)
- ☐ 6. \*Comprehension I (1+)
- a)

Alternate. Drawing a cross

Mos. ....

**YEAR IV** (6 tests, 1 month each; or 4 tests, 1½ months each)

- ☐ 1. \*Picture vocabulary (same as II, 5; II-6, 4; III, 2; III-6, 2) (16+)
- ☐ 2. \*Naming objects from memory (2+)                      a)                      b)                      c)
- ☐ 3. Picture completion: Man (same as V, 1) (1 point)
- ☐ 4. \*Pictorial identification (3+)
- a) Stove                      b) Umbrella                      c) Cow                      d) Rabbit                      e) Moon                      f) Cat
- ☐ 5. \*Discrimination of forms (8+)      No. correct.....
- ☐ 6. Comprehension II (2+)
- a)    b)

Alternate. Memory for sentences I (1+)

- a) We are going to buy some candy for mother.
- b) Jack likes to feed the little puppies in the barn.

Mos. ....

**YEAR IV-6** (6 tests, 1 month each; or 4 tests, 1½ months each)

- ☐ 1. Aesthetic comparison (3+)                      a)                      b)                      c)
- ☐ 2. \*Repeating 4 digits (1+)
- a) 4-7-2-9.....                      b) 3-8-5-2.....                      c) 7-2-6-1.....
- ☐ 3. \*Pictorial likenesses and differences (same as VI, 5) (3+)
- a)                      b)                      c)                      d)                      e)
- ☐ 4. Materials (2+)      a) Chair                      b) Dress                      c) Shoe
- ☐ 5. \*Three commissions (3+)      a)                      b)                      c)
- ☐ 6. \*Opposite analogies I (same as VII, 5) (2+)
- a)                      b)                      c)                      d)                      e)

Alternate. Pictorial identification (same as IV, 4) (4+)

Mos. ....

**YEAR V** (6 tests, 1 month each; or 4 tests, 1½ months each)

- ☐ 1. \*Picture completion: Man (same as IV, 3) (2 points)
- ☐ 2. Paper folding: Triangle
- ☐ 3. \*Definitions (2+)
- a) Ball                      b) Hat                      c) Stove
- ☐ 4. Copying a square (1+)                      a)                      b)                      c)
- ☐ 5. \*Memory for sentences II (1+)
- a) Jane wants to build a big castle in her playhouse.
- b) Tom has lots of fun playing ball with his sister.
- ☐ 6. \*Counting four objects (2+)                      a)                      b)                      c)

Alternate. Knot

Mos. ....

(There is no heading V-6 and there are only six months of credit between the headings Year V and Year VI because each group of tests covers the period immediately preceding its age heading, in this case the period from Year IV-6 to Year V.)



YEAR VI (6 tests, 2 months each; or 4 tests, 3 months each)

☐ 1. \*Vocabulary (5+) No. words.....

☐ 2. \*Copying a bead chain from memory I (2 min.)

☐ 3. Mutilated pictures (4+)

a)

b)

c)

d)

e)

☐ 4. \*Number concepts (3+)

a)

b)

c)

d)

☐ 5. \*Pictorial likenesses and differences (same as IV-6, 3) (5+)

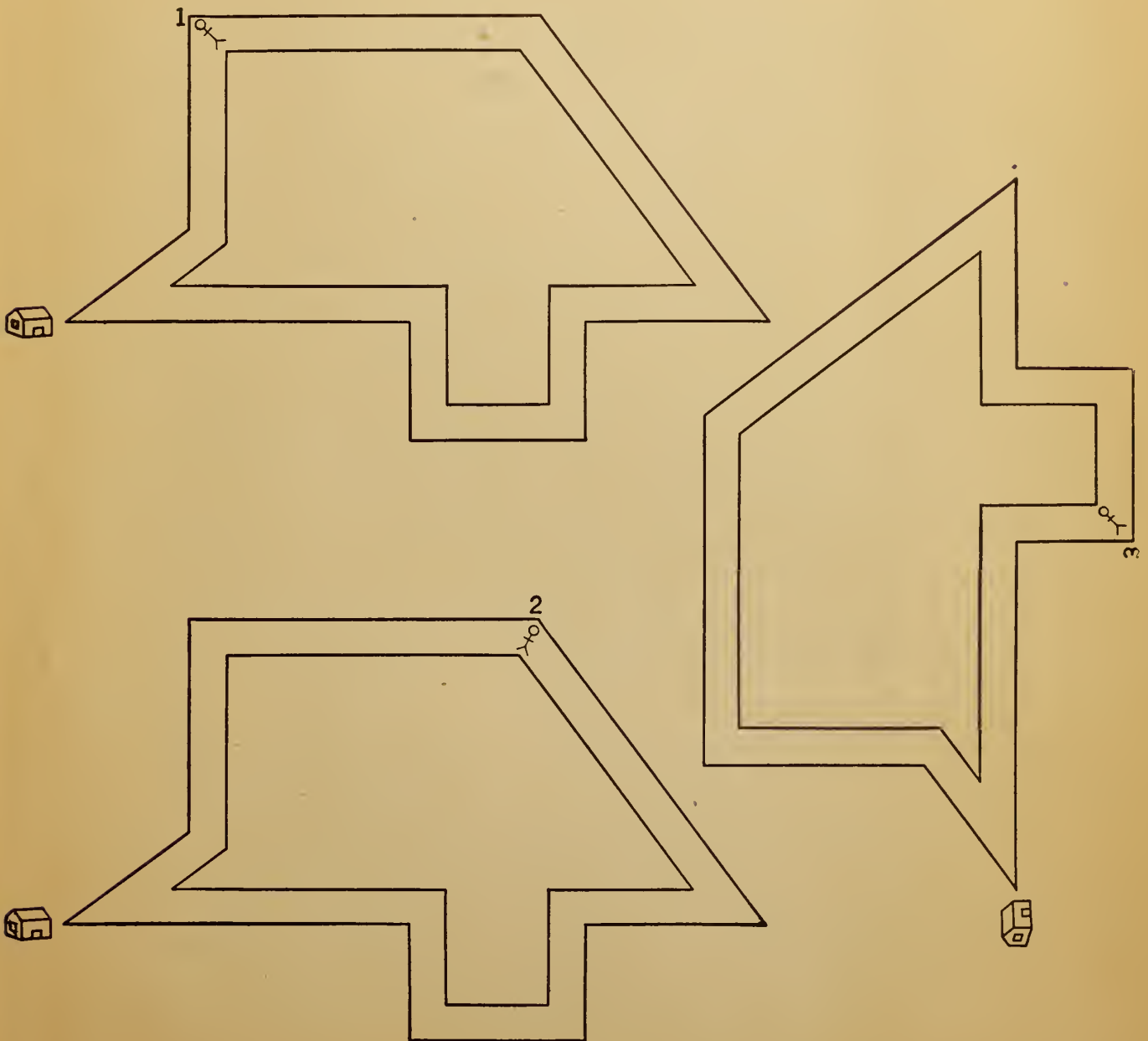
☐ 6. Maze tracing (2+)

a)

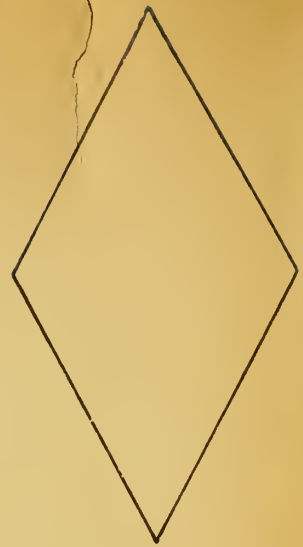
b)

c)

Mos.....







**YEAR VII** (6 tests, 2 months each; or 4 tests, 3 months each)

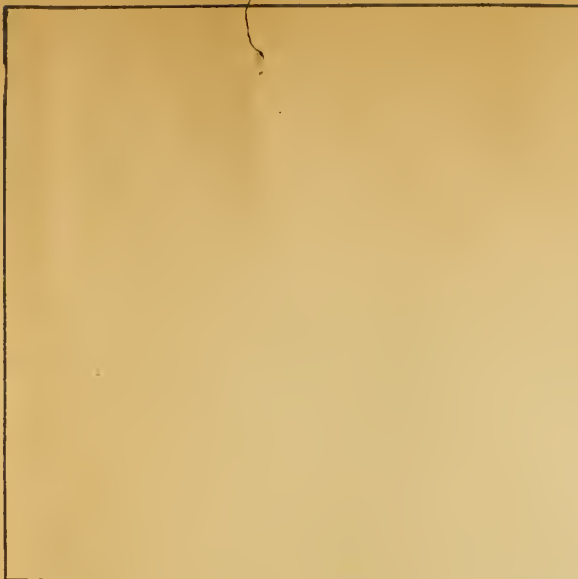
- ☐ 1. Picture absurdities I (3+)
- a)
- b)
- c)
- d)
- ☐ 2. \*Similarities: Two things (2+)
- a) Wood and coal
- b) Apple and peach
- c) Ship and automobile
- d) Iron and silver
- ☐ 3. \*Copying a diamond (2+)                      a)                      b)                      c)
- ☐ 4. Comprehension III (2+)
- a)
- b)
- c)
- ☐ 5. \*Opposite analogies I (same as IV-6, 6) (5+)
- a)                      b)                      c)                      d)                      e)
- ☐ 6. \*Repeating 5 digits (1+)
- a) 3-1-8-5-9.....                      b) 4-8-3-7-2.....                      c) 9-6-1-8-3.....

**Mos.**.....

**YEAR VIII** (6 tests, 2 months each; or 4 tests, 3 months each)

- ☐ 1. \*Vocabulary (8+)      No. words.....
- ☐ 2. Memory for stories: The Wet Fall (5+)
- a) ..... b) ..... c) ..... d) .....
- e) ..... f) .....
- ☐ 3. \*Verbal absurdities I (3+)
- a)
- b)
- c)
- d)





YEAR VIII (Continued)

- ☐ 4. \*Similarities and differences (3+)

a) Baseball — orange

b) Aeroplane — kite

c) Ocean — river

d) Penny — quarter

- ☐ 5. \*Comprehension IV (2+)

a)

b)

c)

- ☐ 6. Memory for sentences III (1+)

a) Fred asked his father to take him to see the clowns in the circus.

b) Billy has made a beautiful boat out of wood with his sharp knife.

Mos. ....

YEAR IX (6 tests, 2 months each; or 4 tests, 3 months each)

- ☐ 1. Paper cutting I (same as XIII, 3) (1+)                      a)                      b)

- ☐ 2. Verbal absurdities II (same as XII, 2) (3+)

a)

b)

c)

d)

e)

- ☐ 3. \*Memory for designs (same as XI, 1) (1+ or 2 with ½ credit each)

a)

b)

- ☐ 4. \*Rhymes: New form (3+)

a)

b)

c)

d)

- ☐ 5. \*Making change (2+)

a) 10-4 .....

b) 15-12 .....

c) 25-4 .....

- ☐ 6. \*Repeating 4 digits reversed (1+)

a) 8-5-2-6 .....

b) 4-9-3-7 .....

c) 3-6-2-9 .....

Mos. ....

**YEAR X** (6 tests, 2 months each; or 4 tests, 3 months each)

☐ 1. \*Vocabulary (11+) No. words.....

☐ 2. Picture absurdities II — Frontier Days

☐ 3. \*Reading and report (35 seconds, 2 errors, 10 memories)

Memories..... Time for reading..... Mistakes.....

New York | Seprember | 5th. | A fire | last night | burned | several houses | near the center |  
of the city. | It took some time | to put it out. | The loss | was fifty thousand | dollars, | and seventeen |  
families | lost their homes. | In saving | a girl | who was asleep | in bed, | a fireman | was burned |  
on the hands.

☐ 4. \*Finding reasons I (2+)

a)

b)

☐ 5. \*Word naming (28 words in one minute)

☐ 6. Repeating 6 digits (1+)

a) 4-7-3-8-5-9..... b) 5-2-9-7-4-6..... c) 7-2-8-3-9-4.....

**Mos.**.....

**YEAR XI** (6 tests, 2 months each; or 4 tests, 3 months each)

☐ 1. \*Memory for designs (same as IX, 3) (1½+)

☐ 2. \*Verbal absurdities III (2+)

a)

b)

c)

☐ 3. \*Abstract words I (3+)

a) Connection

b) Compare

c) Conquer

d) Obedience

e) Revenge

☐ 4. Memory for sentences IV (1+)

a) At the summer camp the children get up early in the morning to go swimming.

b) Yesterday we went for a ride in our car along the road that crosses the bridge.

☐ 5. Problem situation

☐ 6. \*Similarities: Three things (3+)

a) Snake — cow — sparrow

b) Rose — potato — tree

c) Wool — cotton — leather

d) Knifeblade — penny — piece of wire

e) Book — teacher — newspaper

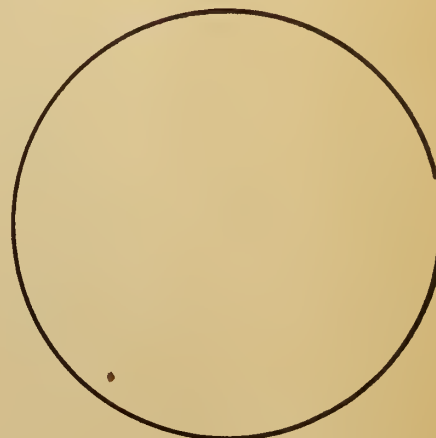
**Mos.**.....

**YEAR XII** (6 tests, 2 months each; or 4 tests, 3 months each)

- ☐ 1. \*Vocabulary (14+) No. words.....
- ☐ 2. \*Verbal absurdities II (same as IX, 2) (4+)
- ☐ 3. Response to pictures II: Messenger Boy
- ☐ 4. Repeating 5 digits reversed (1+)
- a) 8-1-3-7-9..... b) 6-9-5-8-2..... c) 5-2-9-4-1.....
- ☐ 5. \*Abstract words II (same as XIV, 6) (2+)
- a) Constant  
b) Courage  
c) Charity  
d) Defend
- ☐ 6. \*Minkus completion (same as S.A. I, 3) (2+) (5 min.)
- Mos. ....

**YEAR XIII** (6 tests, 2 months each; or 4 tests, 3 months each)

- ☐ 1. Plan of search
- ☐ 2. Memory for words (1+)
- a) Cow, sand, glass, chair, bell.  
b) Grace, truth, worth, peace, doubt.
- ☐ 3. \*Paper cutting I (same as IX, 1) (2+)
- ☐ 4. \*Problems of fact (2+)
- a)  
b)  
c)
- ☐ 5. \*Dissected sentences (2+) (1 min. ea.)
- a)  
b)  
c)
- ☐ 6. \*Copying a bead chain from memory II (2 min.)
- Mos. ....



**YEAR XIV** (6 tests, 2 months each; or 4 tests, 3 months each)

- ☐ 1. \*Vocabulary (16+) No. words.....
- ☐ 2. \*Induction a) b) c) d) e) f) Rule:
- ☐ 3. Picture absurdities III: The Shadow
- ☐ 4. \*Ingenuity (same as A.A., 6) (1+) (3 min. ea.)
- a)  
b)  
c)
- ☐ 5. Orientation: Direction I (3+) a) b) c) d) e)
- ☐ 6. \*Abstract words II (same as XII, 5) (3+)
- Mos. ....

H U R R Y

H U R R Y

BDNPLNDF SUNP KMNPNMOCENPMO  
C O M E T O L O N D O N

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**AVERAGE ADULT** (8 tests, 2 months each; or 4 tests, 4 months each)

- ☐ 1. \*Vocabulary (20+) No. words.....
- ☐ 2. \*Codes (1½+) (3 min. ea.) a) b)
- ☐ 3. \*Differences between abstract words (2+)
- a) Laziness and idleness
- b) Poverty and misery
- c) Character and reputation
- ☐ 4. Arithmetical reasoning (2+) (1 min. ea.) a) b) c)
- ☐ 5. Proverbs I (2+)
- a)
- b)
- c)
- ☐ 6. \*Ingenuity (same as XIV, 4) (2+) (3 min. ea.)
- ☐ 7. Memory for sentences V (1+)
- a) The red-headed woodpeckers made a terrible fuss as they tried to drive the young away from the nest.
- b) The early settlers had little idea of the great changes that were to take place in this country.
- ☐ 8. Reconciliation of opposites (same as S.A. II, 5) (3+)
- a) Heavy — light d) More — less
- b) Tall — short e) Outside — inside
- c) Sick — well f) Asleep — awake

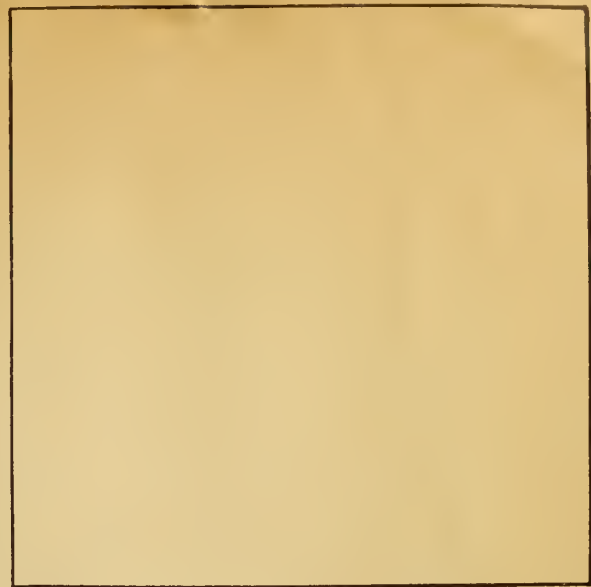
**Mos.**.....

**SUPERIOR ADULT I** (6 tests, 4 months each; or 4 tests, 6 months each)

- ☐ 1. \*Vocabulary (23+) No. words.....
- ☐ 2. Enclosed box problem (3+) a) b) c) d)
- ☐ 3. \*Minkus completion (same as XII, 6) (3+) (5 min.)
- ☐ 4. \*Repeating 6 digits reversed (1+)
- a) 4-7-1-9-5-2..... b) 5-8-3-6-9-4..... c) 7-5-2-6-1-8.....
- ☐ 5. \*Sentence building (2+)
- a) Benefactor — institution — contribution
- b) Civility — requirement — employee
- c) Attainment — fortune — misery
- ☐ 6. Essential similarities (2+)
- a) Farming and manufacturing
- b) Melting and burning
- c) An egg and a seed

**Mos.**.....





**SUPERIOR ADULT II** (6 tests, 5 months each; or 4 tests, 7½ months each)

☐ 1. \*Vocabulary (26+) No. words.....

☐ 2. \*Finding reasons II (2+)  
a)

b)

☐ 3. \*Repeating 8 digits (1+)

a) 7-2-5-9-4-8-3-6.....

b) 4-7-1-5-3-9-6-2.....

c) 4-1-9-3-5-8-2-6.....

☐ 4. \*Proverbs II (2+)  
a)

b)

☐ 5. Reconciliation of opposites (same as A.A., 8) (5+)

☐ 6. Repeating thought of passage: Value of Life

Many opinions have been given on the value of life. | Some call it good, | others call it bad. | It would be nearer correct to say that it is mediocre, | for on the one hand our happiness is never as great as we should like, | and on the other hand our misfortunes are never as great as our enemies would wish for us. | It is this mediocrity of life which prevents it from being radically unjust.

Mos.....

**SUPERIOR ADULT III** (6 tests, 6 months each; or 4 tests, 9 months each)

☐ 1. \*Vocabulary (30+) No. words.....

☐ 2. \*Orientation: Direction II (2+)

a)

b)

☐ 3. \*Opposite analogies II (2+) a)

b)

c)

☐ 4. Paper cutting II

☐ 5. \*Reasoning (5 min.)

☐ 6. Repeating 9 digits (1+)

a) 5-9-6-1-4-8-3-2-7.....

b) 9-2-5-8-4-1-7-3-6.....

c) 4-7-2-9-1-6-8-5-3.....



- a) One cannot always be a hero,.....one can always be a man.  
 b) The streams are dry,.....there has been little rain.  
 c) .....either of us could speak, we were at the bottom of the stairs.  
 d) He is.....well grounded in geography.....his brother,  
 .....he is not so quick in arithmetic.

## MINKUS COMPLETION

### VOCABULARY

Score.....

1. orange.....
2. envelope.....
3. straw.....
4. puddle.....
5. tap.....
6. gown.....
7. eyelash.....
8. roar.....
9. scorch.....
10. muzzle.....
11. haste.....
12. lecture.....
13. Mars.....
14. skill.....
15. juggler.....
16. brunette.....
17. peculiarity.....
18. priceless.....
19. regard.....
20. disproportionate.....
21. shrewd.....
22. tolerate.....
23. stave.....
24. lotus.....
25. bewail.....
26. repose.....
27. mosaic.....
28. flaunt.....
29. philanthropy.....
30. ochre.....
31. frustrate.....
32. incrustation.....
33. milksop.....
34. harpy.....
35. ambergris.....
36. piscatorial.....
37. depredation.....
38. perfunctory.....
39. limpet.....
40. achromatic.....
41. casuistry.....
42. homunculus.....
43. sudorific.....
44. retroactive.....
45. parterre.....



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**FOR REFERENCE**

**Do Not Take From This Room**

ACQUISITION SYSTEM  
BIS SYSTEM

The following information is available  
for the acquisition system. This system  
provides a full range of services  
including the acquisition of  
information and the management of  
the information system.



